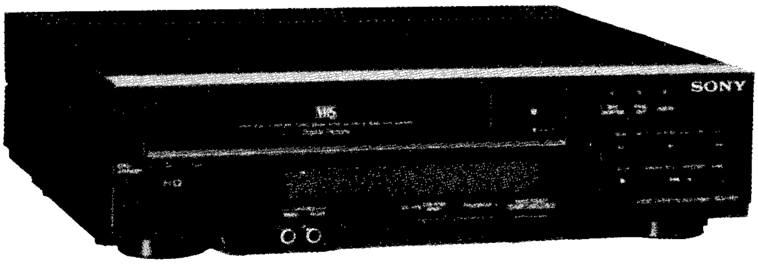
SLV-401/402
RMT-257

SERVICE MANUAL

AEP Model
SLV-401
West Germany Model
SLV-402



This photo is SLV-401.

- **Refer to the SERVICE MANUAL of RMT-257 about RMT-257.**
- **Refer to the SERVICE MANUAL of VHS MECHANICAL ADJUSTMENTS I for MECHANICAL ADJUSTMENTS.**

SPECIFICATIONS

System

Format	VHS PAL standard
Video recording system	Rotary two-head helical scanning FM system
Video signal	PAL colour (System B and G: SLV-401/402) DDR SECAM colour CCIR monochrome signals 625 lines
Tape speed	23.39 mm/sec.
Maximum recording/playback time	4 hours (E-240)
Fast-forward and rewind time	Approx. 3 min. (E-120)

Tuner section

Tuner system (audio)	Intercarrier system
Channel coverage	VHF channels E2 — E12 (A to H only for Italy) CATV channels S01 — S05 CATV channels S1 — S20 HYPER S21 — S41 UHF channels E21 — E69
RF output signal	UHF channels E30 — E39 (adjustable)
Aerial input	75-ohm asymmetrical aerial socket

Inputs and outputs

Video inputs	LINE IN 1 and 2: phono jacks EUROCONNECTOR: 21-pin (pin 20) 1 Vp-p, 75 ohms, unbalanced, sync negative
Audio inputs	LINE IN 1 and 2: phono jacks 47 kilohms, −8 dBs (0 dBs=0.775 V rms) EUROCONNECTOR: 21-pin (pins 2 and 6) More than 10 kilohms, −4 dBs
Video outputs	LINE OUT: phono jack EUROCONNECTOR: 21-pin (pin 19) 1Vp-p, 75 ohms, unbalanced, sync negative

— continued on next page —

VHS VIDEO CASSETTE RECORDER

SONY®

Audio outputs	LINE OUT: phono jack – 8 dBs at load impedance 47 kilohms Output impedance: less than 10 kilohms EUROCONNECTOR: 21-pin (pins 1 and 3) Output impedance: less than 1 kilohm – 4 dBs with 10 kilohms load
CONTROL S IN	Minijack (1)
CONTROL S OUT	Minijack (1)
CONTROL L	5-pin connector (1)

Timer section

Clock	Quartz locked
Time indication	24-hour cycle
Timer setting	Only for recording 8 programmes one month at max.
Timer back up	Build-in self-charging capacitor Back-up duration: Up to 3 hours at one time

General

Power requirements	220V AC, 50Hz
Power consumption	38W
Operating temperature	5° C to 40° C
Storage temperature	– 20° C to 60° C
Dimensions	355 × 94 × 345 mm (w/h/d)
Weight	6.6 kg

Wireless commander RMT-257

Remote control system	Infrated control
Power requirements	3 V DC, two IEC designation R6 batteries
Dimensions	82 × 20 × 225mm (w/h/d)
Weight	120g (excluding batteries)

Accessories supplied

Wireless commander RMT-257 with two R6 batteries	(1)
75-ohm coaxial cable	(1)
Screwdriver	(1)

Design and specifications are subject to change without notice.

Note
This appliance conforms with EEC Directives 76/889 and 82/499 regarding interference suppression.

SAFETY CHECK-OUT

After correcting the original service problem, perform the following safety checks before releasing the set to the customer:

1. Check the area of your repair for unsoldered or poorly-soldered connections. Check the entire board surface for solder splashes and bridges.
2. Check the interboard wiring to ensure that no wires are "pinched" or contact high-wattage resistors.
3. Look for unauthorized replacement parts, particularly transistors, that were installed during a previous repair. Point them out to the customer and recommend their replacement.
4. Look for parts which, though functioning, show obvious signs of deterioration. Point them out to the customer and recommend their replacement.
5. Check the B+ voltage to see it is at the values specified.

SAFETY-RELATED COMPONENT WARNING!!

COMPONENTS IDENTIFIED BY MARK ⚠ OR DOTTED LINE WITH MARK ⚠ ON THE SCHEMATIC DIAGRAMS AND IN THE PARTS LIST ARE CRITICAL TO SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY.

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SECTION 1
GENERAL

This section is extracted from instraction manual.

1-1. PRECAUTIONS

On safety

- Operate the unit only on 220V AC, 50Hz for SLV-401/402.
- Should any thing into the cabinet, unplug the unit and have it checked by qualified personnel before operating it any further.
- Unplug the unit from the wall outlet if it will not to be used for an extended period of time. To disconnect the cord, pull it out by the plug. Never pull the cord itself.

On installation

- Allow adequate air circulation to prevent internal heat build-up.
- Do not place the unit on surfaces (rugs, blankets, etc.) or near materials (curtains, draperies) that may block the ventilation slots.
- Do not install the unit near heat sources such as radiators or air ducts or in a place subject to direct sunlight, excessive dust, mechanical vibration or shock.
- The unit is designed for operation in a horizontal position. Do not install it in an inclined position.
- Keep the unit and cassette tapes away from equipment with strong magnets, as for example a microwave oven or a large loudspeaker.
- Do not place any heavy object on the unit.

On operation

- When the unit is not in use, turn the power off to conserve energy and to extend its useful life.
- Remove and store video cassettes after recording or playback.
- Store the cassettes in their cases and keep them in an upright position to prevent intrusion of dust and uneven winding.

On cleaning

Clean the cabinet, panel and controls with a dry soft cloth, or a soft cloth slightly moistened with a mild detergent solution.
Do not use any type of solvent, such as alcohol or benzine, which might damage the finish.

On repacking

Do not throw away the carton and packing materials. They make an ideal container in which to transport the unit. When shipping the unit to another location, repack it as illustrated on the carton.

If you have any questions about this unit, contact your Sony service facility.

1-2. FEATURES

Distinguished Editing Functions

Edit monitor functions
You can know the editing process at a glance as both the picture being back and the one being recorded are simultaneously displayed on the connected TV or monitor.

Input connectors located on the front
This allows you to use a video camera recorder easily.

Flying erase head
Colour streaks and blurs which were conventionally caused by continuous recording or insert editing are eliminated with this head.

Synchronized editing with a Sony VTR equipped a control terminal
You can control this unit and the connected VTR simultaneously during editing.

Control S input/output jacks and control L jack
You can remotely control the tape transport of another Sony video unit by using this unit.

Display Functions

Auto menu
You can select the various tape running modes with the auto menu.

Programme list
You can see the TV programmes set for timer-activated recording at a glance.

P in P (picture in picture)
You can watch a small TV picture inset in a VTR playback picture and vice versa.

Tape transport information displayed
You can see the information of the tape counter, tape speed and remained tape length on the TV monitor as the data screen.

Blue background function*
The VTR automatically paints the background in blue when the following items are displayed on the data screen so that you can read the data easily.

- EDIT MONITOR screen
- Programme list
- Auto menu
- Timer title

Convenient Functions

Multi-function wireless commander with the liquid-crystal display
You can control timer recordings easily with this commander.

Timer recordings of eight TV programmes over a month
You can preset eight recordings of TV programmes as much as one month in advance.

Index search and index scan
You can locate a desired programme easily by marking the beginning of the programme with an INDEX signal.

High-quality Picture

This VTR provides sharp, finely detailed pictures through High Quality (HQ) picture technology.
HQ The Video Cassette Recorder (VTR) with this marking incorporates VHS high-quality picture technology and is compatible with any Video Cassette Recorders bearing the VHS mark.

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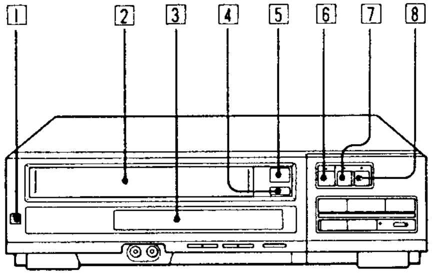
* The background becomes blue in the following situations:
- When you select a programme not pre-set
- When a unrecorded tape or a tape portion without a CTL signal is played back
- When an aerial is not connected
- When the TV signal is weak
- When no TV programmes are being broadcast
- When you select the input signal from the LINE IN 1 or 2 jack when no any equipment is connected there.
- When snow and noise appear on the picture

1-3. LOCATION AND FUNCTION OF PARTS AND CONTROLS

A1



For details on the use of each control, refer to the pages indicated in the black circles (●).

A1 **Front**

1 **ON/STANDBY switch and indicator**

2 **Cassette compartment**

3 **Display window**

4 **EJECT button**
Press to eject the cassette.
This button does not function during recording.

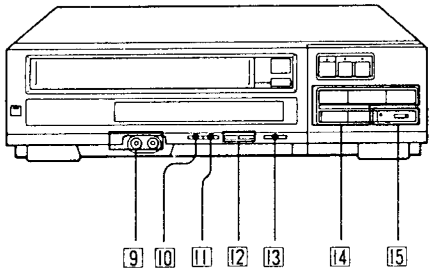
5 **Remote sensor**

6 **EDIT MONITOR button and indicator**
Press to display both the picture selected with INPUT SELECT and that recorded or performed insert editing on the tape simultaneously.

7 **SYNC EDIT (synchronized editing) button and indicator** (62)
Press to perform synchronized editing.

8 **INSERT button and indicator** (67)
Press to perform insert editing.

A2



A2 **Front**

9 **VIDEO/AUDIO (line in 2 audio and video) jacks** (phono type)

10 **TV/VTR button**
This button is operable only when a TV is connected to EUROCONNECTOR.
Press so that the VTR indicator lights up (VTR mode) to watch the programme selected on the VTR. To watch a different programme selected on the TV, press this button again so that the indicator goes off.

11 **COUNTER RESET button**
Press to reset the tape counter to "0H00M00S" and "0:00:00" on the data screen.

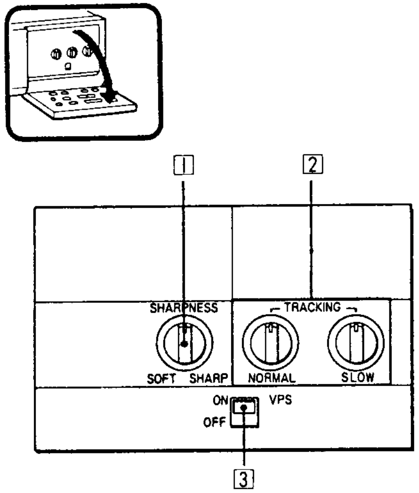
12 **PROGRAM +/– buttons**
Press to select the channels. And press + to advance and – to go back.

13 **INPUT SELECT button**
To select the programme to be recorded, press so that the desired input mode indicator appears in the display window.
TUNER: For recording TV programmes
LINE: For recording the signals from the LINE IN 1, 2 jacks or EUROCONNECTOR. L1 or L2 is displayed in the channel number indicator position of the display window depending on the jack used.
If the video equipment is connected only through the EUROCONNECTOR, it is regarded as the input from LINE IN 1.

14 **Tape transport buttons and indicators**
- ◀◀ REW (rewind) button and indicator
- ▶ PLAY button and indicator
- ▶▶ FF (fast-forward) button and indicator
- ■ STOP button
- II/▶◀ PAUSE/STILL button and indicator

15 **RECORD switch and indicator**
Slide to the right to start recording.

A3


1
2
SHARPNESS
TRACKING
SOFT
SHARP
NORMAL
SLOW
ON
OFF
VPS
3

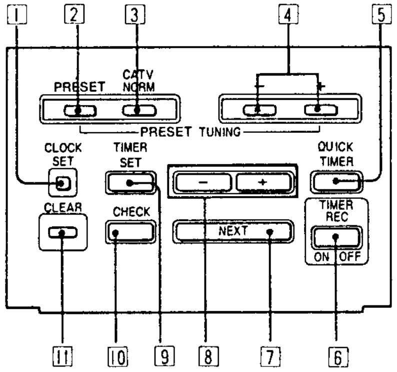
A3 Inside the Front Panel

1 **SHARPNESS control**
Use to adjust the sharpness of the picture if necessary. Normally set the control at the center detent position.

2 **TRACKING controls**
Normally keep these controls at the center position. Turning either of these controls may help clear possible streaks on the screen, especially when playing back tapes recorded on another VTR.
NORMAL: For normal and double speed playback.
SLOW: For slow speed playback and freeze pictures.

3 **VPS (Video Programme System) switch (SLV-402 only) ㊺**
This switch is provided only for the SLV-402.
Set to ON to activate the VPS function.

A4


1
2
3
4
5
PRESET
CATV
NORM
−
+
PRESET TUNING
CLOCK SET
TIMER SET
QUICK TIMER
−
+
CLEAR
CHECK
NEXT
TIMER REC
ON
OFF
11
10
9
8
7
6

A4

1 **CLOCK SET button**
Press to start the setting of the date and clock.

2 **PRESET button ㉓**
Use to pre-tune the preferred channels.

3 **CATV/NORM (CATV/normal) button**
Use to change the scannable area between the VHF and UHF channels and CATV channels.

4 **PRESET TUNING + / − buttons**
Use to tune channels.

5 **QUICK TIMER button ㊾**
Press to start a quick timer recording.

6 **TIMER REC ON/OFF button ㊵**
Press to activate the timer recording.

7 **NEXT button**
Press to advance to the next item to be set during date, clock or timer setting.

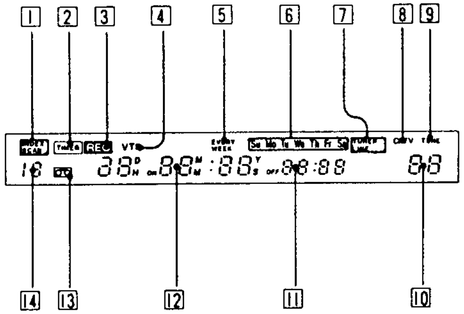
8 **Programme/Timer + / − buttons**
Press to set the timer and programme for timer-activated recording.

9 **TIMER SET button**
Press to start the setting or resetting of timer programmes.

10 **CHECK button**
Press to check the contents of the preset timer programmes.

11 **CLEAR button ㉔**
Press to eliminate an unwanted preset channel and to clear the timer setting.

A5



A5 Display Window

1 **INDEX SCAN indicator**

2 **TIMER indicator**
This indicator appears while you are setting or checking data for timer recording or while the VTR is performing timer recording, is waiting for the turn-on time of timer recording, or is performing quick timer recording.

3 **REC (record) indicator**
This indicator appears while the VTR is performing timer-recording, is waiting for the turn-on time of timer-recording, or is performing quick timer recording.

4 **VTR indicator**

5 **EVERY WEEK indicator**

6 **Day indicator**

7 **Input mode indicators**

8 **CATV indicator**

9 **TUNE (tuning) indicator**

10 **Programme number indicator**

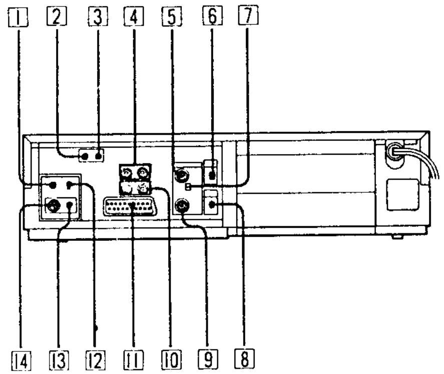
11 **Current time, timer recording end time, or clock setting indicator**

12 **Linear time counter, date, timer recording start time, or calendar setting indicator**

13 **Cassette indicator**

14 **Timer programme number for timer recording, index number for index searching or scanning**

A6



A6 Rear

1 **STILL ADJ (still picture adjustment) control**
Adjust the still picture with this control according to the connected TV or monitor. You do not need readjust this control once you adjust it as long as you use the same TV or monitor.

2 **CONTROL S IN jack (mini type)**
Connect to the CONTROL S output jack of another Sony product for systematic operations such as a synchronized editing.

3 **CONTROL S OUT jack (mini type)**
Connect to the CONTROL S input jack of another Sony product for automatic editing and other systematic operations such as a synchronized editing.

4 **LINE IN 1 AUDIO and VIDEO jacks (phono type)**

5 **AERIAL IN socket**
Connect the aerial cable.

6 **TEST SIGNAL switch**
Set to ON to obtain a test pattern.

7 **DX/LOCAL switch**
Normally set to DX. If the TV signal is very strong, set the switch to LOCAL.

8 **RF CHANNEL screw**
If there is interference on the factory-preset channel for RF output and the output signal from this unit cannot be displayed clearly on the TV screen, adjust the screw with the supplied screwdriver.

9 **AERIAL OUT socket**
Connect the aerial input of the TV receiver.

10 **LINE OUT AUDIO and VIDEO jacks (phono type)**
This connector is not for displaying the data screen on the TV or monitor.

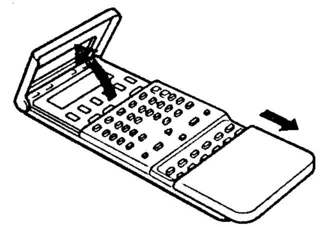
11 **EUROCONNECTOR (21-pin)**
Connect to the 21-pin connector of a VTR or a TV/monitor, or to the audio/video input of these units with an appropriate connecting cable.

12 **COMMAND MODE selector**
Set this selector to the same position as that of the COMMAND MODE button of the supplied wireless commander.

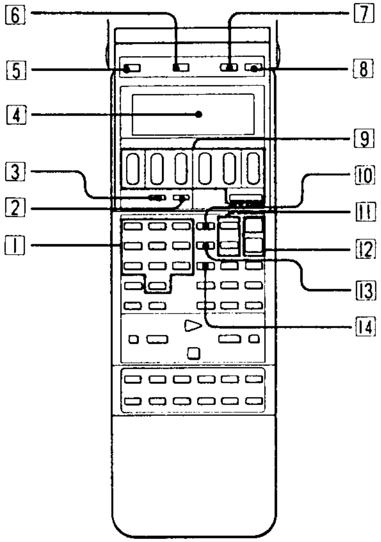
13 **CONTROL L MASTER/SLAVE selector**
Set to SLAVE only when you use another remote commander like RM-E100V to control this VTR.

14 **CONTROL L connector (5-pin DIN)**
Connect to the CONTROL L connector of an optional video editing controller RM-E100V or other Sony product such as an 8mm video camera recorder, for systematic operations.

A7



A8



A7 Wireless Commander RMT-257

Before using the commander
Set the COMMAND MODE selector located on the rear of the VTR to the same position as that of the COMMAND MODE selector of the commander.

A8

The buttons without explanation have the same function as the buttons on the VTR with the similar name or mark. Operate this commander without opening the upper cover except when setting data for timer recording.

1 **Programme number buttons**

2 **MEMORY button**
Press to store data for timer recording in the memory.

3 **CLOCK SET button**

4 **Liquid-crystal display**

5 **COMMAND MODE selector**

6 **TV/VTR selector**
Set to TV when you use this commander to operate a TV. Set to VTR to operate this VTR.

7 **TV/VTR button**

8 **⏻ (On/Standby) button**

9 **Timer recording setting buttons**
Date/turning-on time/turning-off time/programme/transmit

10 **INPUT SELECT button**

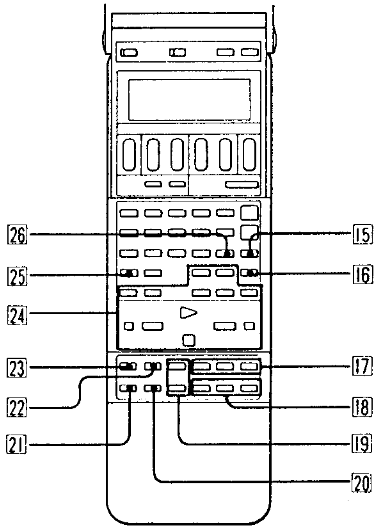
11 **VOL (volume) +/− button**
Press to adjust the volume of the TV.
Press + to increase and − to decrease.

12 **PROG (Programme) +/− buttons**

13 **EDIT MONITOR button ㉟**

14 **TIMER DISPLAY button**
Display for checking timer-recording programmes is superimposed over the blue background on the TV or monitor.

A9



A9

15 **INDEX button**

16 **⊕ (Display) button**
When TV/VTR selector 6 is set to TV, pressing this button clears information from the TV, such as input modes ⊕-1 ⊕-2.
When TV/VTR selector 6 is set to VTR, pressing this button clears the data screen, including various information such as the remaining tape length.

17 **Auto menu buttons**
Use to select the automatic tape operation listed in the auto menu displayed when pressing AUTO MENU.
AUTO MENU
SELECT
EXECUTE

18 **TIMER CHECK/CLEAR/TIMER REC ON/OFF buttons ㊻**

19 **INDEX MARK and ERASE buttons**

20 **DIGITAL OFF button**

21 **TV SCAN button**

22 **SHIFT button**

23 **P in P (picture in picture) button**

24 **Tape transport buttons**
❚❚ PAUSE
● REC and the recording auxiliary button (right side)
❚❚▶ (frame)
❚▶ SLOW +/−
×2
◀◀ ▶▶ SEARCH (Reverse/forward)
▶ PLAY
◀◀ REW (rewind)
▶▶ FF (fast-forward)
■ STOP

25 **−/— (10's digit) button**
To enter a programme number higher than 10, press this button before entering a programme number.

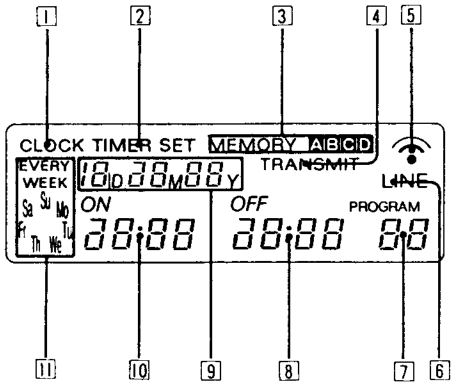
26 **COUNTER RESET button**

When you operate a TV by using a commander
Use buttons which have orange dots on top of each.

INPUT SELECT button
When the upper cover is opened, you can set the data for timer-activated recording. When the upper cover is closed, you can change the data of the current setting.

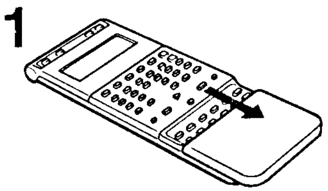
When the data screen or edit monitor is displayed
During slow playback, or while playing back a commercially available recorded tape, noise may appear over the picture in the data screen or edit monitor. In this case, refer to the information on the display window of the VTR instead.

A10

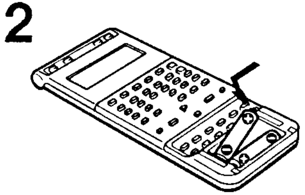

1
2
3
4
5
CLOCK TIMER SET
MEMORY
A B C D
EVERY WEEK
TRANSMIT
LINE
Sa Su Mo Tu We Th Fr
ON
OFF
PROGRAM
11
10
9
8
7
6

A11

1



2



A10 Liquid-crystal Display

1 **Current time setting indicator**

2 **Timer setting indicator**

3 **Memory indicator**

4 **Data transmit prompt indicator**
Indicates that the necessary data have been set and calls upon the person to press TRANSMIT.

5 **(data transmit) indicator**
Indicates that the set data are being transmitted.

6 **External input indicator**

7 **Programme number for timer recording or selected line input indicator**

8 **End time of a timer recording**

9 **Current data and data for timer recording**

10 **Current time and start time of a timer recording**

11 **Every week and day indicators**

A11 Battery Insertion

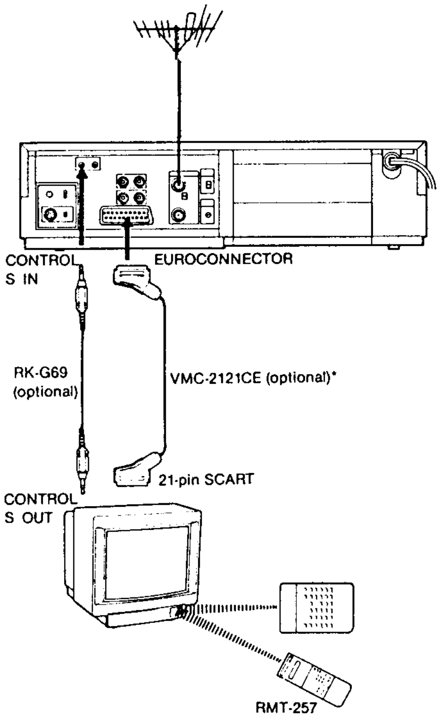
1 Open the lid.

2 Insert two R6 (size AA) batteries with correct polarity.

3 Slide and close the lid.

Battery life
In normal operation, batteries will last for six months.

A12


CONTROL S IN
EUROCONNECTOR
RK-G69 (optional)
VMC-2121CE (optional)*
21-pin SCART
CONTROL S OUT
RMT-257

A12 Remote Control Operation

For owners of other Sony video equipment or TVs

You can operate the VTR by pointing this commander at your TV or TV tuner if it is equipped the CONTROL S output jack.
This is convenient when the VTR is located far away from the TV.

Remotely controlling the video equipment without the COMMAND MODE switch
Set COMMAND MODE on the commander as follows:
VTR1: for Sony Betamax infrared remote control VTRs
VTR2: for Sony 8mm format VTRs
VTR3: for this unit

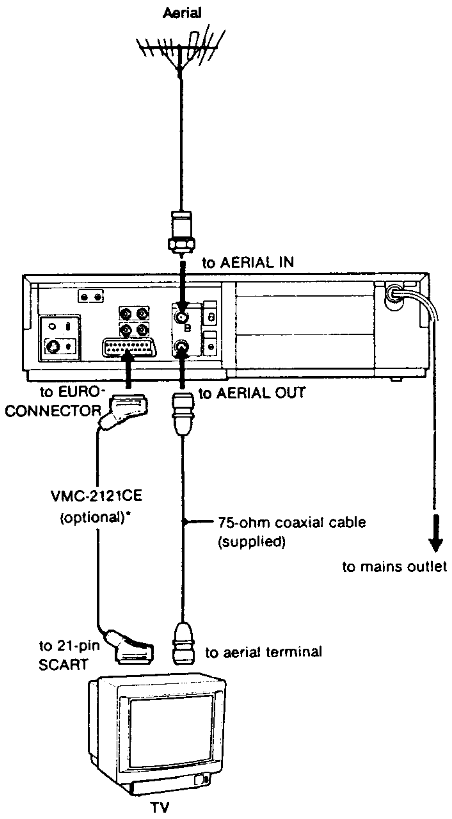
Avoiding having this VTR and the other equipment functioning simultaneously
Set COMMAND MODE of this VTR to a different position from the command mode selector of the other equipment. Simply by switching COMMAND MODE, you can control two VTRs separately.

If the wireless commander will not be used for a long period of time
Remove the batteries to avoid possible damage from battery leakage.

* When you connect a Sony TV, the LINE OUT connectors can be used to connect it. In this case, use VMC-600M/601M or VMC-602MS/603MS (optional).

1-4. CONNECTIONS

B1


Aerial
to AERIAL IN
to EURO-CONNECTOR
to AERIAL OUT
VMC-2121CE (optional)*
75-ohm coaxial cable (supplied)
to mains outlet
to 21-pin SCART
to aerial terminal
TV

Before making connections
- Turn off all equipment.
- Do not connect the mains lead to a wall outlet until all the connections of the VTR and the TV have been completed.
- Make connections firmly. Loose connections may cause a distorted picture.

B1

Note

For a high-quality picture, connect a colour monitor or a TV equipped with video/audio input jacks. However, you cannot view a TV programme on a colour monitor while recording another programme. If you want to do so, use a TV tuner together with the monitor. For details on the connection of the TV tuner and the monitor, refer to the instruction manual of the TV tuner.

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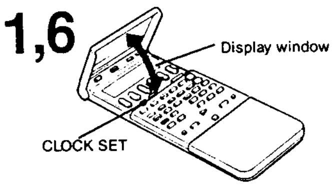
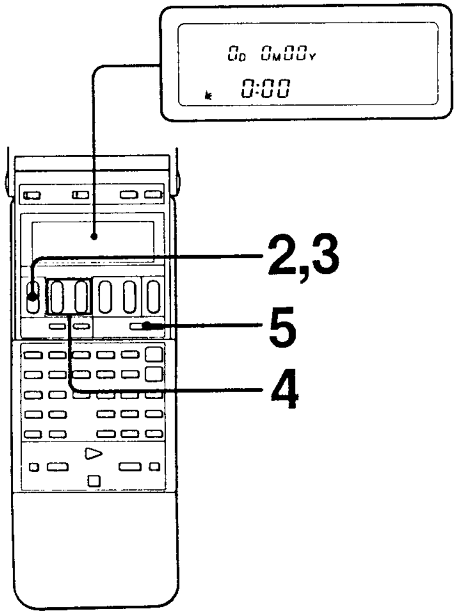
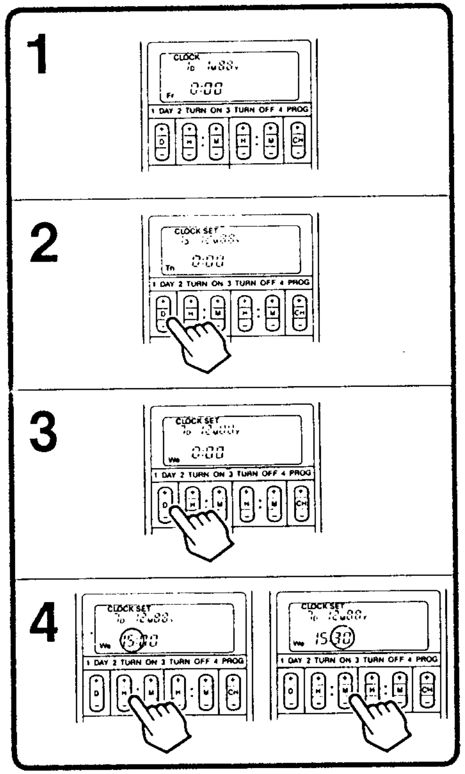
*You can connect the TV also by using the LINE OUT connectors instead of the EUROCONNECTOR. In this case, the TV cannot display the data screen supplied from the VTR.

1-5. DATE AND CLOCK SETTING

C1







You can set the calendar between the year 1988 and 2003.

You can set the date and clock by using the wireless commander or by using the buttons on the inside front panel of the VTR.

Setting with the Wireless Commander C1

Example: to set the date/clock to 3:30 p.m., December 7, 1988.

1 **Open the cover of the commander, and press CLOCK SET.**

2 **Set the year and month.**
Keep the D button pressed until the appropriate year and month is indicated, then release it.
The day numbers advance from 1 to 31 (depending on the month), and then the month indication changes to the next month.

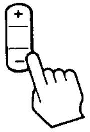
3 **Press the D button again and again until the appropriate day is indicated.**
The day of the week is automatically displayed when the year, month and day are registered.

4 **Press the H and M buttons in the TURN ON section to set the hour and minute.**

5 **Press TRANSMIT with pointing the commander at the VTR at the same time as an announced time signal.**
The clock now starts, and the clock on the display window of the VTR indicates the correct time.

6 **Close the cover of the commander.**

If you go past the correct number of the date or time
Press the lower half of the button (minus side) to go back.



When you replaced exhausted batteries with new ones
Repeat this setting from step 1.

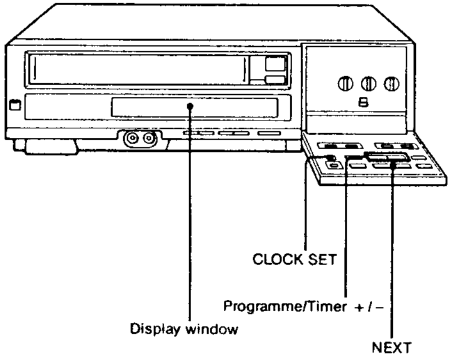
If short beep sounds repeatedly during transmission
The VTR is during:
- Timer-activated recording
- Quick timer recording
- Being set the clock with the buttons on the VTR
- Being set the data for timer-activated recording with the buttons on the VTR

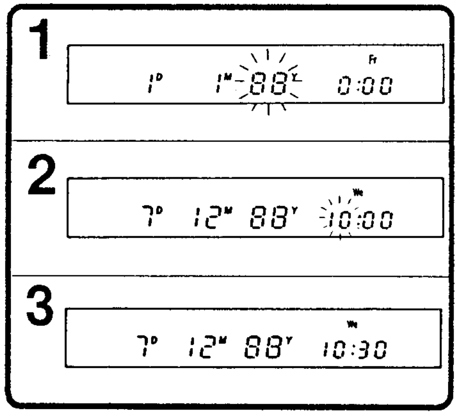
When the power is turned off
The clock operates unless you disconnect the power cord.
The clock continues to work for 3 hours after the power cord is disconnected or a power interruption occurs.

When "0:00" blinks on the display window
There has been a power interruption for more than 3 hours or the power cord has been disconnected for more than 3 hours. In this case, readjust the clock.

Readjusting the clock on the VTR
Open the upper cover of the commander, press CLOCK SET, readjust the clock and press TRANSMIT.

C2





Setting with the Buttons of the VTR

You can set the date/clock even when the power is turned off.
Use Programme/Timer +/−. Every time you press this, the number or the day of the week changes by one. When you keep this button pressed, they change more so quickly.

C2

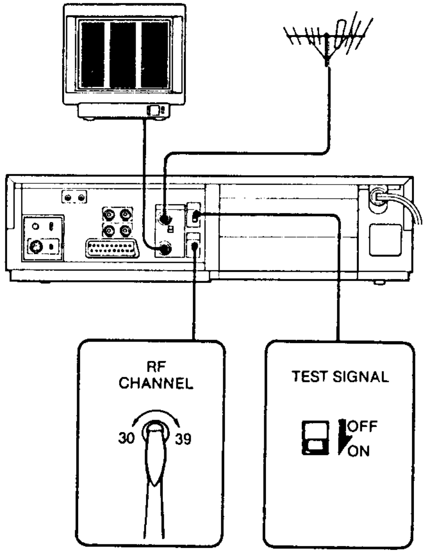
1 **Press CLOCK SET.**

2 **Set the year, month, day and hour in sequence by pressing Programme/Timer +/− at the blinking item and pressing NEXT.**
The day of the week is automatically displayed.

3 **Set the minute with Programme/Timer +/−. Press NEXT at the same time as an announced time signal.**
The clock now starts and the date indicator disappears.

1-6. ADJUSTING THE TV

D1



D1

One of the television programme positions must be adjusted to receive the signal from the recorder.
If you connect a monitor or TV equipped with video/audio jacks, this adjustment is not necessary.

1 **After making connections, press ON/STANDBY.**
The lamp lights.

2 **Make sure that the VTR is in the stop mode and that the TV is set for the tuner as input.**

3 **Set TEST SIGNAL at the rear of the VTR to ON.**
The test signal is transmitted on a channel between UHF 30 and 39.

4 **Turn on the TV and select a programme position which is not being used to receive a TV station. Tune the channel until you see a clear black and white pattern on the TV screen.**
This is the recorder's test signal.

5 **Set TEST SIGNAL to OFF if the picture is free of disturbance.**

Your TV is now tuned to the VTR. Whenever you use the VTR, set the TV to the programme selected above.

If the test picture is not free of disturbance

1 **Set TEST SIGNAL to OFF.**

2 **Adjust the channel between UHF 30 and 39 with the tuning colour or the fine tuning control on the TV, so that the TV screen shows no picture and so that a steady rustling sound or no sound is heard.**

3 **Set TEST SIGNAL to ON again.**

4 **Slowly turn the RF CHANNEL screw on the rear of the VTR with the supplied screwdriver, until you see an undistorted test pattern on the TV screen.**

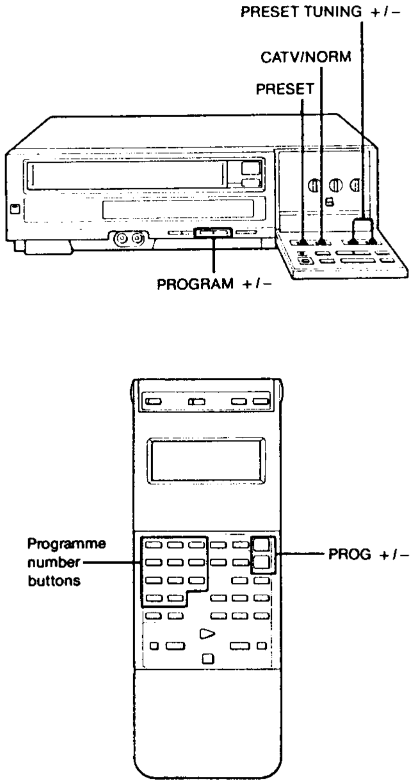
5 **Reset TEST SIGNAL to OFF.**

If you are not sure how to adjust your TV, refer to the TV's instruction manual or consult your dealer.

Check!
Check that the programme displayed on the screen changes when a different programme is selected on the VTR.
If the programme does not change, repeat the preceding steps.

1-7. PRESETTING THE ACTIVE CHANNELS IN YOUR AREA

E1



E1

Your VTR is capable of receiving VHF channels E2 – E12, UHF channels E21 – E69 and cable TV channels S1 – S41, S01 – S05.

Before selecting or presetting TV programmes

- Turn on the VTR and the TV.
  Make sure that the TV is set to the correct programme for the VTR.
- Press INPUT SELECT so that the TUNER indicator and programme number appear in the display window.

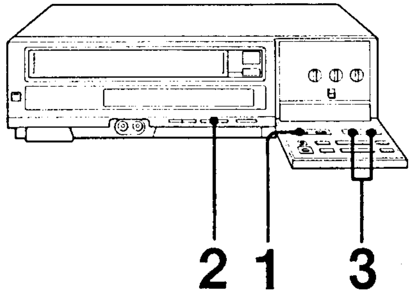
Selecting TV Programmes

There are two ways to select the programme numbers.

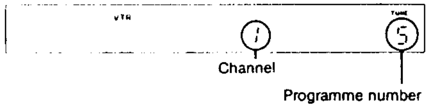
- Press –/-- (if necessary) and the programme number button(s) on the commander.
- Press PROGRAM +/– on the VTR or PROG +/– on the commander.
  For lower-numbered programmes, press "–", and for higher-numbered programmes, press "+".

If the picture of the desired programme does not appear in the above procedure, preset the programme as in "Pre-tuning of Built-in TV Tuner".

E2



E3



Pre-tuning of Built-in TV Tuner E2

Once you have pre-tuned the preferred stations, you can select any of them by merely pressing the PROGRAM +/– buttons on the VTR or commander.

1 **Press PRESET.**

2 **Press PROGRAM +/– until the desired programme number appears on the display window.** E3

3 **Press PRESET TUNING +/–.**
At a station that is broadcasting, a picture appears on the TV screen. If the station received is different from that to be preset, press PRESET TUNING +/– again. At the next station, the searching will stop and the new station can be preset. Repeat this until the desired station is reached.

Notes

- Press PRESET TUNING +, and channels are scanned in the order VHF (E2 – E12) →UHF (E21 – E69)→ CATV (S1 – S41)→HYPER BAND (S21 – S41)→VHF (S01 – S05).
  The CATV indicator appears only while the VTR is scanning the CATV and HYPER channels.
- Press PRESET TUNING –, and channels are scanned in the reverse order.

4 **Repeat steps 2 and 3 above for other programme numbers.**
You can preset up to 60 programmes.

5 **After having completed tuning all the programmes you want, press PRESET again.**

You can directly preset programme numbers by using the commander.
After step 2, press the programme number button(s) on the commander instead of step 3 to preset desired channels.

If you want to enter a programme number higher than 10 by using programme number buttons
Press –/--, and then the desired number.
Example: 23
–/-- 2 3

Channels 13 to 20 corresponds to channels A to H in Italy.

You can scan CATV channels without waiting for completion of UHF scanning.
Press CATV/NORM after step 3. The VTR starts scanning CATV channels.

Fine-tuning a weak station

Normally, the automatic fine-tuning function works.
If the picture of a particular programme is not acceptable, perform the following operation:

1 **Select the programme already preset by pressing PROGRAM +/–.**

2 **Press PRESET TUNING +/– until the picture becomes clearer.**

CATV S13 – S20 (Italy A – H)
These channels are available in Italy.

Erasing Unwanted Preset Programmes

You can preset the VTR so that only the desired programmes will appear in sequence when you press PROGRAM +/–.

1 **Press PRESET.**

2 **Press PROGRAM +/– until the unwanted programme is found.**

3 **Press CLEAR.**

4 **Repeat steps 2 and 3 until all the unwanted programmes have been erased.**

5 **Press PRESET.**

Adding Programmes

You can put back programmes removed by CLEAR and add programmes for new broadcasting stations.

1 **Press PRESET.**

2 **Select the programme number to which no broadcast station is assigned by using PROGRAM +/–.**

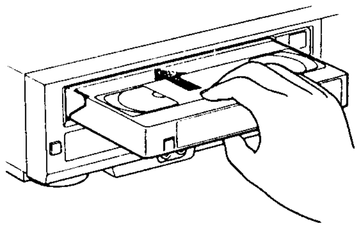
3 **Press PRESET TUNING +/– until the channel which has been previously erased and you want to preset is found.**

4 **Repeat steps 2 and 3 for other programmes if desired.**

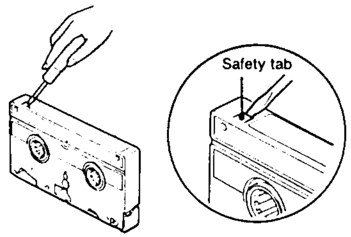
5 **Press PRESET.**

1-8. HANDLING THE VIDEO CASSETTES

F1



F2



Inserting a Cassette F1

Insert a cassette.
The power will be turned on automatically.

Ejecting a Cassette

Press EJECT.
When the power is off and EJECT is pressed, the VTR turnes on automatically and the cassette is ejected.
After which, the power is turned off automatically.

Note

While the VTR is in recording mode or performing an insert edit, press STOP to stop recording and then press EJECT.

Avoiding Erasing a Recorded Tape F2

When a new recording is made on a previously recorded cassette, the old recording will be erased automatically.

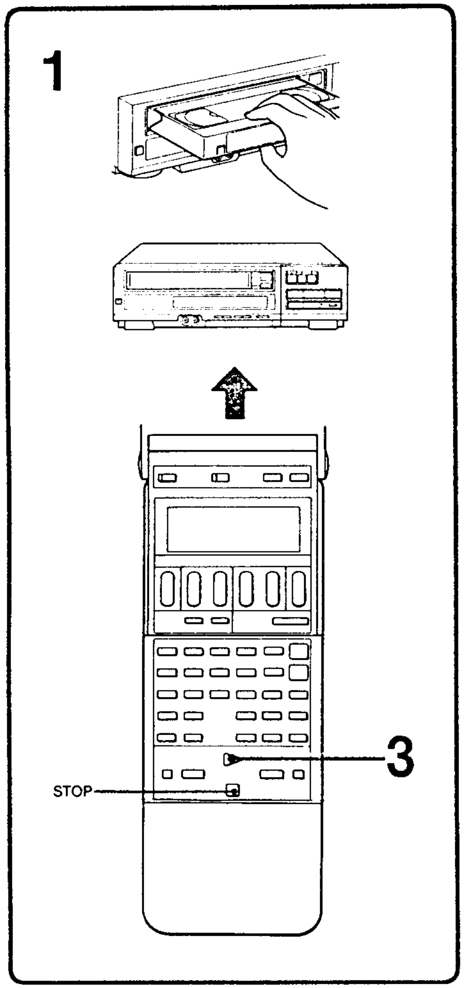
Avoiding accidental erasing
Break off the safety tab.

To re-record a cassette whose safety tab is broken off

Cover the slot where the safety tab used to be located with cellophane tape.

1-9. PLAYBACK

G1



Playing Back a Tape G1

1 **Insert a cassette.**
The power is turned on automatically (Auto power on).*

2 **Turn on the TV and select the programme for the VTR or select the input for the VTR.**

3 **Press PLAY.**
Playback begins.

Stopping playback

Press STOP.

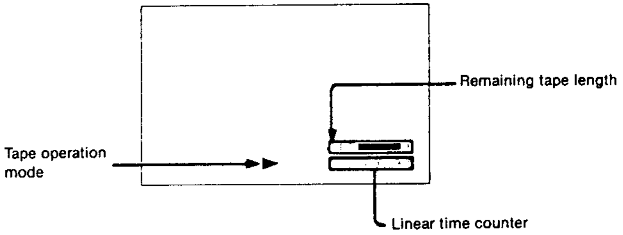
If the data screen does not appear

The data screen disappears during slow motion playback or playback pause.
The data screen does not appear when you press ⊞.
The remaining tape length indicator disappears during fast-forwarding or rewinding.

Note

The digital pictures obtained from the playback of an external video equipment may be distorted.

What does the data screen indicate?



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* If you insert a cassette whose safety tab is broken off during the power standby mode, the VTR will start playing back automatically.

When the tape is played back to the end
The tape is automatically rewound to the beginning (Auto rewind). The power remains on.

Running the tape at a fast speed
Press ►► FF.

Rewinding the tape
Press ◄◄ REW.

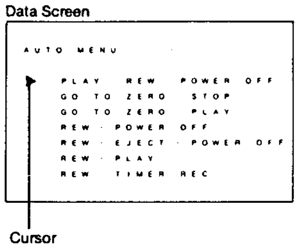
Remaining tape length indicator
The displayed remaining tape length is not precise.
Therefore, use it as an approximate reference.
When you insert a short tape such as E-30, or a nonstandarized commercially available tape, this indicator may malfunction.

Getting a sharper picture
Turn the SHARPNESS control toward SHARP.

Getting a softer picture
Turn the SHARPNESS control toward SOFT.

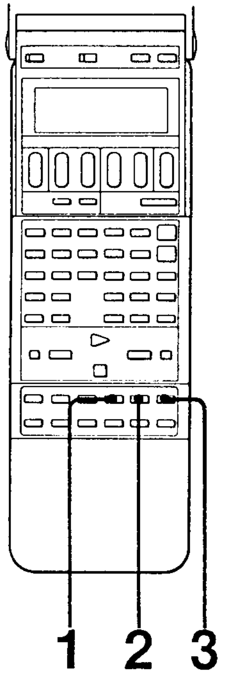
Erasing the data screen from the display
Press ⊞.

G2



AUTO MENU

PLAY REW POWER OFF
GO TO ZERO STOP
GO TO ZERO PLAY
REW · POWER OFF
REW · EJECT · POWER OFF
REW · PLAY
REW TIMER REC



Auto Play — Pre-setting the VTR's Operation G2

1 **Press AUTO MENU when the tape stops.**
The auto menu is displayed on the data screen.

2 **Move the cursor by pressing SELECT.**

3 **Press EXECUTE.**
The selected operation begins.

What does each operation indicator mean?

You can select the following kinds of operation displayed in the auto menu.

PLAY — REW — POWER OFF
The tape is played back to its end and rewound to its beginning. Then the power is turned off.

GO TO ZERO — STOP
The tape is fast-forwarded/rewound to the zero counter position, and stops. See "Tape Return/Tape Return Play" for detailed operation.

GO TO ZERO — PLAY
The tape is fast-forwarded/rewound to the zero counter position, and is played back. See "Tape Return/Tape Return Play" for detailed operation.

REW — POWER OFF
The tape is rewound to its beginning and the power is turned off.

REW — EJECT — POWER OFF
The tape is rewound to its beginning and the cassette is ejected. Then the power is turned off.

REW — PLAY
The tape is rewound to its beginning and is played back.

REW — TIMER REC
The tape is rewound to its beginning and the VTR enters to the standby mode for timer-activated recording.

Notes on the auto play operation
- You can pre-set the auto play operation only when the tape is stopped.
- The cassette with a broken off safety tab is ejected when you select REW — TIMER REC.

Recalling the previous screen without selecting the auto menu
Press AUTO MENU.

When the power is turned off
The VTR retains the selected cursor position.

Various Playback Modes

Use the buttons on the VTR or the commander.

Still picture (playback pause)

Press ❚❚/▶◀ PAUSE/STILL on the VTR or ❚❚ PAUSE on the commander during normal playback or various playback modes.

Frame-by-frame Picture

Press ❚❚▶ (frame) on the commander in still picture mode.

Various speed playback

Press the desired speed button during playback or in the various playback mode.
Press SLOW +/− on the commander for slow motion pictures (1/5 to 1/30). +/− determines how slow the tape runs.
Press x2 on the commander for double speed pictures.
To change the playback speed, simply press the desired speed button.

Locked picture search

— Viewing the picture while fast-forwarding or rewinding.
Press (◀◀) SEARCH or (▶▶) on the commander during normal playback or various playback modes.

Resuming the normal playback

Press PLAY on the commander or the VTR.

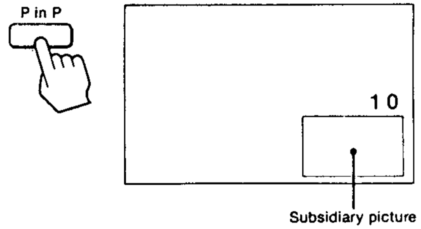
Picture search

Press ◀◀ (REW) or ▶▶ (FF) on the VTR or commander during normal playback or various playback.
You can see the fast-forwarded or rewound picture while you are pressing the button.
When you release the button, the VTR resumes normal playback or various playback.

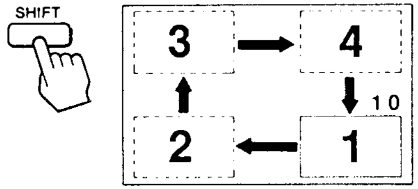
If streaks or noise bands appear in a slow motion picture
Adjust the TRACKING SLOW control on the inside front panel of the VTR.

If the picture appears to shake in the slow motion, still, or double speed (x2) mode
After pressing ❚❚ PAUSE, turn STILL ADJ on the rear of the VTR until the picture stabilizes.

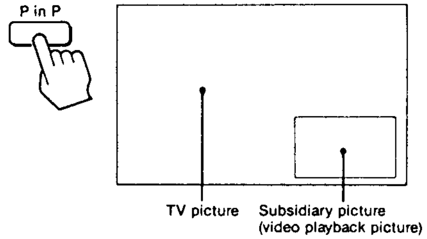
G3



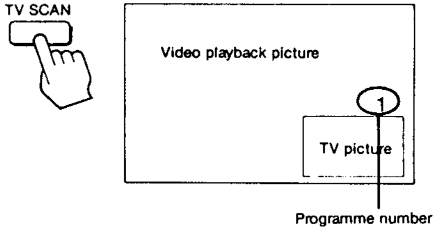
G4



G5



G6



Inserting a Small TV Picture in the VTR Playback Picture — P in P G3

1 **Press INPUT SELECT to display the TUNER indicator.**

2 **Press P in P during playback.**
A moving TV picture (subsidiary picture) appears in the lower right of the screen.*

Changing the position of the subsidiary picture
Press SHIFT on the commander. G4

The position of the subsidiary picture changes cyclically 1 to 4 in order.

Inverting the position of the subsidiary picture
Press P in P again. G5

The TV sound is heard.

Resuming the playback picture
Press DIGITAL OFF.

Watching a TV programme channel by channel in succession — TV scan G6

You can watch a few seconds of TV programmes in the pre-set order.

Press TV SCAN on the commander.
When all the programmes broadcasted on the pre-set channels have been displayed, the programme displayed first appears again.

---

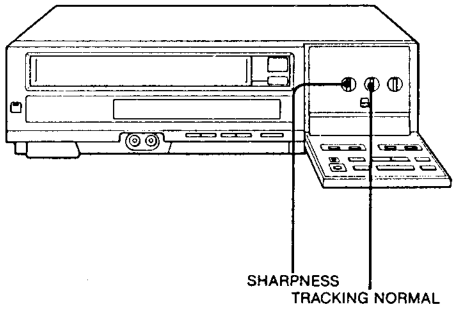
*The VTR retains the selected subsidiary position after turn-off.

When INPUT SELECT is set to L1 or L2
You can watch the picture from the LINE IN 1, LINE IN 2 jack or EUROCONNECTOR instead of the TV picture.
If the video equipment is connected only through the EUROCONNECTOR, it is regarded as the input from LINE IN 1.

If both the LINE IN 1 jack and EUROCONNECTOR are used, the L1 indicator indicates that the picture from the LINE IN 1 jack is displayed.

Monitor sound during P in P operation
You can monitor the sound from the main picture.
The main sound and picture are output from the LINE OUT jack on the rear of the VTR.

G7



Playing Back a Tape Recorded on Another VTR G7

You may have to make some adjustments when playing back a tape recorded on another VTR.

Getting a sharper picture
Turn the SHARPNESS control toward SHARP.

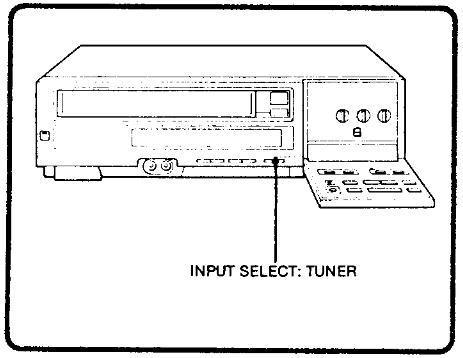
Getting a softer picture
Turn the SHARPNESS control toward SOFT.

When streaks or snow appears

Adjust the TRACKING NORMAL control for the best possible picture.
Return the control to the center position after viewing that tape.

1-10. RECORDING TV PROGRAMMES

H1

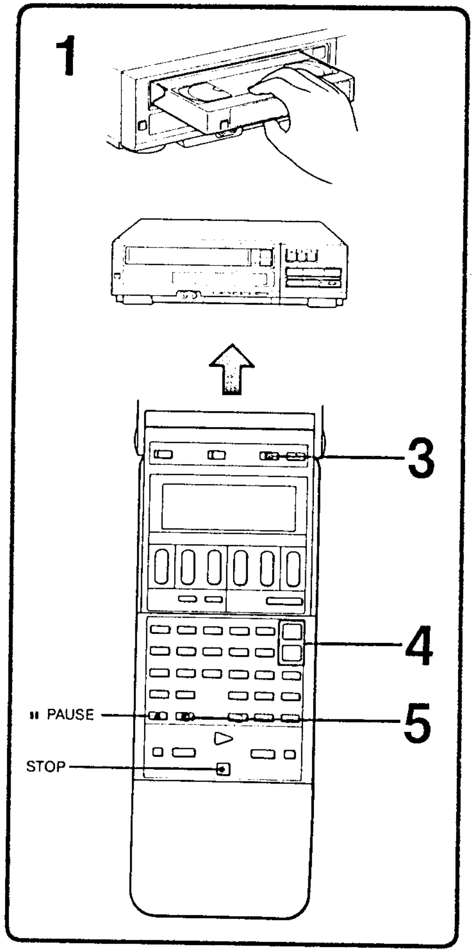


Before Recording H1

Caution
Television programmes, films, video tapes and other materials may be copyrighted.
Unauthorized recording of such material may be contrary to the provisions of the copyright laws.
Also, use of this recorder with cable television transmission may require authorization from the cable television transmitter and/or programme owner.

- Make sure that you have finished all the connections and adjustments on page 16, page 21 through 23.
- Check the positions of the selectors.
- Digital pictures cannot be recorded with this unit. They can be recorded with another recorder, but may not be played back correctly.

H2



Recording H2

1 **Insert a cassette.**
The unit is automatically turned on (**Auto power-on**).

2 **Turn on the TV and select the programme for the VTR.**
If your TV has audio/video inputs, select the VTR input on the TV.

3 **Set TV/VTR to VTR so that the VTR indicator lights.**

4 **Select the programme to be recorded with PROG +/−.**

5 **Press the recording auxiliary button while pressing ● REC.**
Recording begins.

To stop the tape momentarily
Press ıı PAUSE. The TV programme can still be seen on the TV, but the picture will not be recorded.
To resume recording, press ıı PAUSE again.

To stop recording
Press ■ STOP.

When the tape reaches its end
The tape will be rewound to the beginning and the power of the unit remains on.

Useful information

When you want to record a programme without watching the TV
Turn off the power of a TV or colour monitor.
Recording takes place as normal.

What does the VTR indicator displayed on the display window indicate?*
The VTR indicator shows what you watch or record the programme selected by the VTR.

VTR indicator	What you watch
Lit	Programme selected by the VTR
Unlit	Programme selected by a TV
Automatically lit	Playback picture

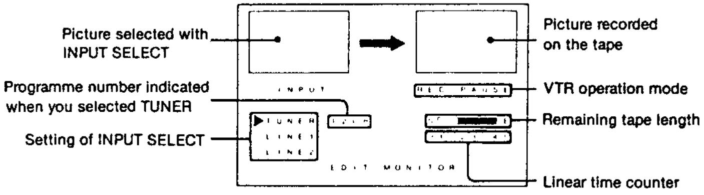
---

*The VTR indicator is displayed only when a TV is connected to EUROCONNECTOR.

When the connected TV is equipped audio/video jacks
You do not need to select the channel for the VTR. You can watch the picture from the VTR automatically when you select *the VTR input on the TV.*

Displaying both the picture selected with INPUT SELECT and that recorded on the tape simultaneously*

Press EDIT MONITOR on the commander or the VTR.


Picture selected with INPUT SELECT
Programme number indicated when you selected TUNER
Setting of INPUT SELECT
INPUT
TUNER
LINE 1
LINE 2
EDIT MONITOR
REC PAUSE
Picture recorded on the tape
VTR operation mode
Remaining tape length
Linear time counter

---

*This function is also useful during recording.

Displaying a picture (left side) selected with INPUT SELECT
You can see the picture selected with INPUT SELECT.
When you press the recording auxiliary button while pressing ●REC, the picture displayed on the left side will be recorded.
During playback or various playback mode, no picture appears on the left side.

Displaying a moving picture (right side) recorded on the tape
The picture recorded on the tape is displayed on the right side during recording. A playback picture appears during playback or various playback mode.

Displaying moving pictures on both sides
You can see moving pictures on both sides when you are recording or performing an insert edit.

Erasing the display above
Press EDIT MONITOR again.

Temporarily Stopping Recording at a Particular Point

You can stop recording when unwanted pictures appear and make the VTR enter the recording pause.

1 **Press ıı PAUSE to temporarily stop the recording**
Recording stops and the VTR enters the pause.

2 **Press ıı PAUSE at the desired point to release the pause.**

When an unwanted scene has started being recorded

1 **Set the VTR to the recording pause.**

2 **Press ► PLAY.**
The VTR enters the playback pause.

3 **Locate the desired point where you wish to continue the recording by rewinding the tape.**

4 **Press the recording auxiliary button while pressing ● REC.**
The VTR will enter the recording pause.

5 **Press ıı** PAUSE at the desired point.
Recording begins again.

Viewing One TV Programme While Recording Another

1 **Press TV/VTR so that the VTR indicator goes off.**

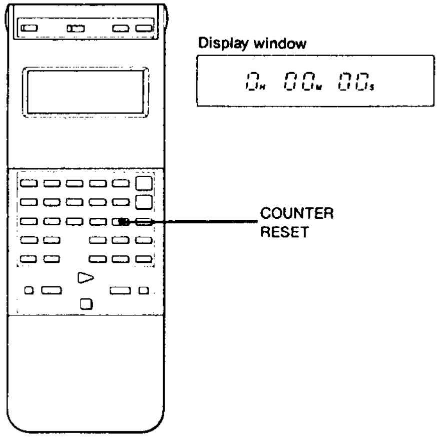
2 **Select the programme you want to view on the TV.**

Notes

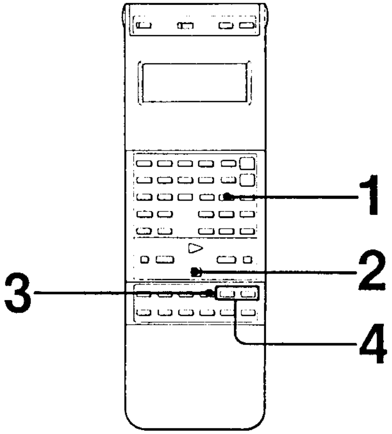
- If you use a colour monitor, you cannot watch another programme during recording unless the monitor has an internal TV tuner.
- If you connect a TV by using an RF cable, you can watch a TV programme by changing the programme selector of the TV.

1-11. USE OF THE TAPE COUNTER

I1



I2



Indexing the Tape Contents I1

Before starting recording or playback, press COUNTER RESET to set the counter to zero. By noting the counter reading at the desired point, you can easily find that point later by referring to the counter. Use the label on the cassette to list the programmes and their counter readings.

Note on counter reading
Even after the cassette is ejected, the counter reading is retained. When the cassette is inserted again, the counter returns to "0H00M00S".

Tape Return/Tape Return Play I2

Tape return

— To stop the tape at a particular point or play back from a particular point

1 **During recording or playback, press COUNTER RESET at the point you want to locate later.**
The counter indicates "0H00M00S".

2 **When recording or playback is finished, press STOP.**

3 **Press AUTO MENU.**
The auto menu is displayed.

4 **Press SELECT to move the cursor to the line "GO-TO ZERO — STOP", and then press EXECUTE.**
The tape is rewound or advanced close to the counter zero point, and stops.

Tape return play

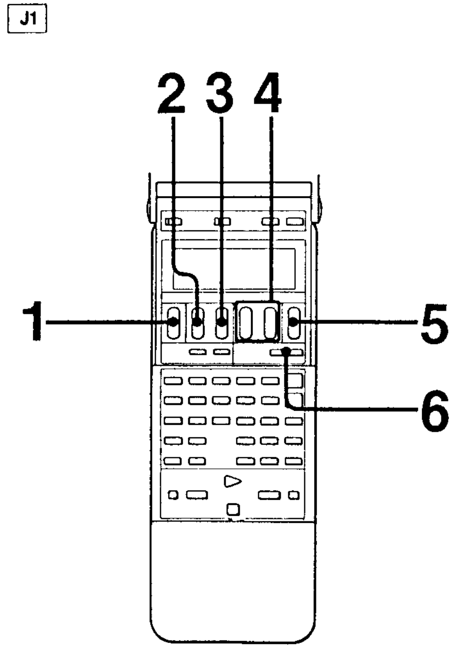
— To start playback automatically from the counter zero point
The operation is almost the same as above except for selecting "GO-TO ZERO — PLAY" in step 4.
The tape is rewound or advanced close to the counter zero point, and playback starts.

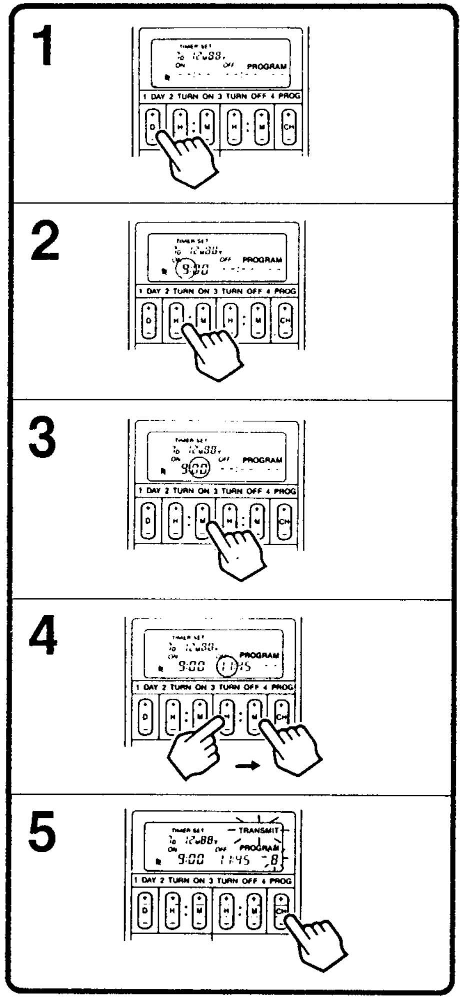
Note

Tape return and tape return play cannot be activated within +/− 30 seconds of the counter zero point.

The tape counter does not work when the inserted tape has no recordings.
The counter does not advance during any portion of a tape with no control signal recorded.

1-12. TIMER-ACTIVATED RECORDING




1
2
3
4
5
PROGRAM
1 DAY 2 TURN ON 3 TURN OFF 4 PROG
TRANSMIT

You can preset up to eight recordings as much as one month in advance.

Check before setting the timer

- The date and clock must be set correctly on the commander. (See pages 18 and 19.)
- Make sure the cassette tape is long enough to record all the programmes.
- Be sure that the safety tab of the cassette is not broken off.
- You can preset the timer without turning on the unit.

Timer Setting by Using a Wireless Commander J1

Suppose you want to make a recording of programme 8 from 9:00 A.M. to 11:45 A.M. on Wednesday, December 7.

1 **Open the cover of the commander and set the date with the D button.**
The date is set from the day to the month, further to the year. The day of the week is then automatically set.

2 **Set the hour of the start time with the H button.**

3 **Set the minute with the M button.**

4 **Set the end time with the H and M buttons, referring to steps 2 and 3.**

5 **Set the programme to be recorded with the PROG button.**
The TRANSMIT indicator starts blinking.
To preset another programme, repeat steps 1 to 5.
Up to 8 programmes can be preset.

6 **Press TRANSMIT and close the cover of the commander.**
When you can set the timer correctly, the beep sounds, and the power, if it has been turned on, is turned off automatically, and the unit enters the standby mode for timer-activated recording.

If necessary, change the INPUT SELECT setting anytime in steps 1 through 5.

After setting, make sure to close the upper cover until you can hear "click".

Automatic power on

The unit is automatically turned on when the set time comes and starts recording. When it completes recording, the power is automatically turned off.

When you could not transmit data
When you close the cover, all data are cancelled.
Press TRANSMIT again without closing the cover to reset data.

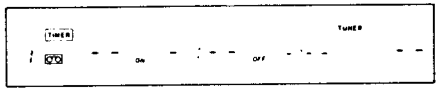
Recording from today to one month later
If today is August 31st, you can set the timer to record a programme broadcasted between today and September 30 (for 31 days).
If today is January 31st, you can set the timer to record a programme broadcasted between today and February 28 (for 29 days). A leap year is automatically considered.

If the safety tab is broken off
If you insert the cassette whose safety tab is broken off, the cassette is automatically ejected when TRANSMIT or TIMER REC ON/OFF is pressed.

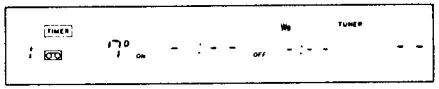
If a short beep sounds again and again when you press TRANSMIT
The unit indicates that the following has occurred:
- Timer-activated operation failed. For example, the past date was preset.
- The unit is in an operation mode other than power-off, stop or timer-activated recording.
- 8 programmes have been preset.
- Tape reaches its end.

Timer Setting by Using Buttons Inside the Front Panel

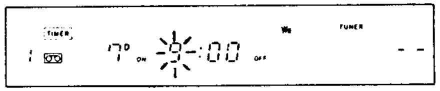
1 **Press TIMER SET.**
The unit is turned on.



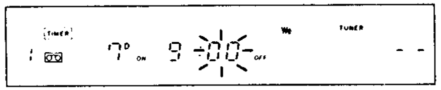
2 **Set the date with Programme/Timer +/–.**
Then press NEXT.



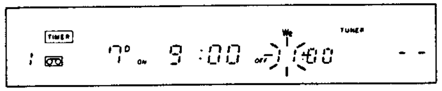
3 **Set the turn-on hour with Programme/Timer +/–.**
Then press NEXT.



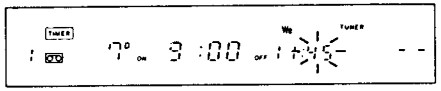
4 **Set the minute with Programme/Timer +/–.**
Then press NEXT.



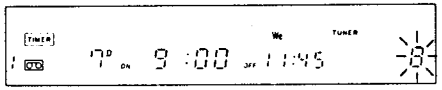
5 **Set the turn-off hour with Programme/Timer +/–.**
Then press NEXT.



6 **Set the minute with Programme/Timer +/–.**
Then press NEXT.



7 **Set the programme to be recorded with Programme/Timer +/–.**
Then press NEXT.

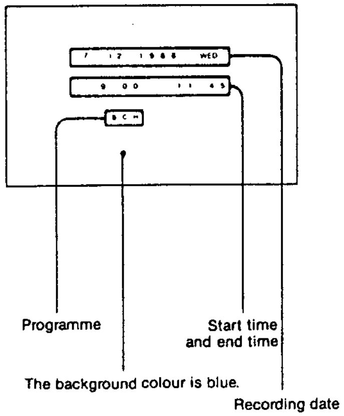


To preset another programme, repeat steps 1 to 7.
Up to 8 programmes can be preset.

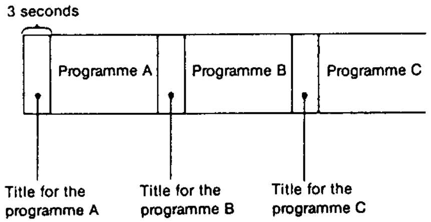
8 **Press TIMER REC.**
The power is turned off and the unit enters the standby mode for timer-activated recording.
None of the buttons except TIMER CHECK can operate.

If necessary, change the INPUT SELECT switch setting anytime in steps 1 through 6.

J2


Programme
Start time and end time
The background colour is blue.
Recording date

J3


3 seconds
Programme A
Programme B
Programme C
Title for the programme A
Title for the programme B
Title for the programme C

Superimposing the title over the blue background — Timer Title J2

You will automatically record the timer title for 3 seconds at the beginning of recording.
30 seconds before the timer-activated recording starts, the power is automatically turned on and the title such as above is recorded for 3 seconds. After that, the VTR enters the standby mode and start recording at the start time.

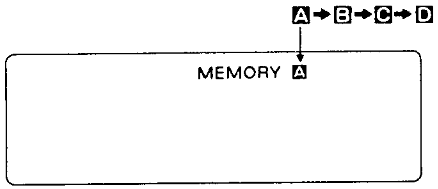
J3

This function is conveninet to search for a certain programme on the tape where many programmes were recorded.

Note

If you set VPS (SLV-402 only) inside the front panel to ON, the timer title cannot be recorded.

J4


A→B→C→D
MEMORY A

Storing the Date and Time for Recording in the Commander's Memory J4

Normally the data for timer-activated recordig, such as the date and the start time is cleared after the recording is completed. However, you can store the data for up to four kinds of recording in the memory by using MEMORY on the commander.

Memory storing

1 **Press MEMORY to indicate A.**
Every time you press MEMORY, the indicator changes in alphabetical order.

2 **Set the programme, date, start time and end time by referring to page 40 through this page.**

Repeat these steps to store the recording data in the memory B, C and D.

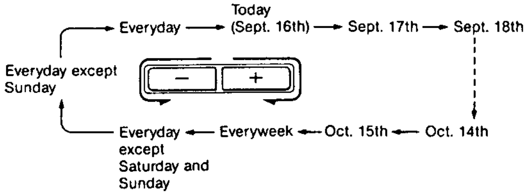
Recalling the data stored in the memory

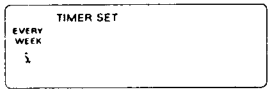
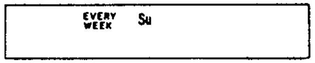
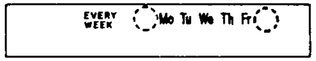
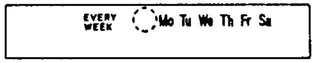
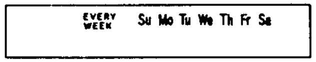
1 **Press MEMORY to select the memory: A, B, C or D.**

2 **Press TRANSMIT on the commander.**
When the data is transmitted correctly, a beep sounds and the VTR enters the standby mode for timer-activated recording.
Recording starts at the set time.
If it fails, a short beep sounds again and again.

Every week recording and every day recording

Keep pressing D on the commander or Programme/Timer +/− on the VTR to display the following indicator in the following order. You can set the timer-activated recording for the same time everyday or on the same day.


Everyday
Today (Sept. 16th)
Sept. 17th
Sept. 18th
Everyday except Sunday
−
+
Everyday except Saturday and Sunday
Everyweek
Oct. 15th
Oct. 14th

The day(s) you want the recording(s) made	Liquid-crystal display	Dispay window
At the same time on the same day every week	 TIMER SET EVERY WEEK	 EVERY WEEK Su
At the same time everyday from Monday to Friday		 EVERY WEEK Mo Tu We Th Fr
At the same time everyday from Monday to Saturday		 EVERY WEEK Mo Tu We Th Fr Sa
At the same time everyday		 EVERY WEEK Su Mo Tu We Th Fr Sa

---

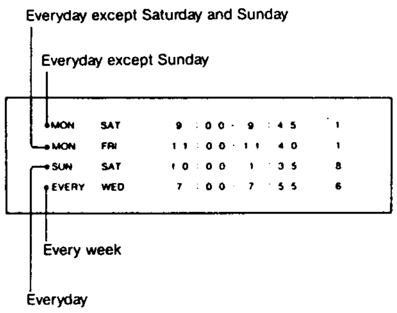
Memory function can make video taping easily

If you watch a certain weekly programme, this function is useful to record only the programme broadcasted in the desired week because your favorite actor or singer will appear. The contents stored in the memory is not cleared after the start time to record, and the date is automatically renewed.

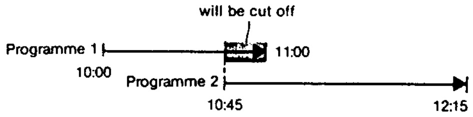
Erasing the data stored in the memory

You cannot clear the data stored in the memory, but you can change the stored data.

In the programme list



J5



When the presettings of your timer-activated recordings overlap J5

The recording of programme 2 will begin before programme 1 is finished.

If the turn-on time of two programmes are the same
The recording of the programme having the lower programme number will be made. The memory of the programme having the higher number will be cleared.

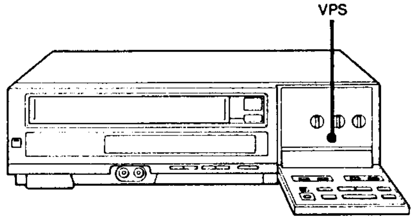
Troubles when TIMER REC ON/OFF is set to ON

The cassette is ejected automatically.	The saftey tab of the inserted cassette is broken off.
The TIMER indicator does not appear.	•No cassette is inserted. •The tape is at its end. •The turn-on time is set from a time before the current time.

Information about timer-activated recording
- When the recording is completed, the memory of the programme is erased if it is for only one day and the timer programme numbers advance one by one.
- When the tape is at its end before the turn-off time, recording stops and the power is turned off.
- The tape is not automatically rewound when it is at its end.

If a power-interruption occurs
- If a power interrpution lasts less than approx. three hours while the VTR is waiting for the preset time, the VTR enters the standby mode again.
  (If a power interruption occurs before a timer recording, the memory is cleared. Set the date and time to preset the data for timer-activated recordings.)
- If a power interruption lasts less than three hours during timer recording, the VTR starts recording again and the tape counter indicates "0H00M00S".
  (If a power interruption occurs during a time recording, recording stops and the power is turned off.)

J6



VPS (Video Programme System) Function (SLV-402 Only) J6

To avoid missing a timer-activated recording because of a delay in the transmission sequence or a change in the programme schedule, the West German broadcasting stations have agreed to transmit a special code, called the VPS (Video Programme System) code, together with the TV programme. The SLV-402 is equipped with a VPS switch which allows you to preset recording times and insures that your programmes will be recorded regardless of delays.

1. **Set VPS to ON.**
2. **Set the timer to the time listed in the VPS programme guide which corresponds to the programme you want to record. (Refer to "Timer Setting by Using a Wireless Commander" or "Timer Setting by Using Buttons Inside the Front Panel" for timer setting.)**

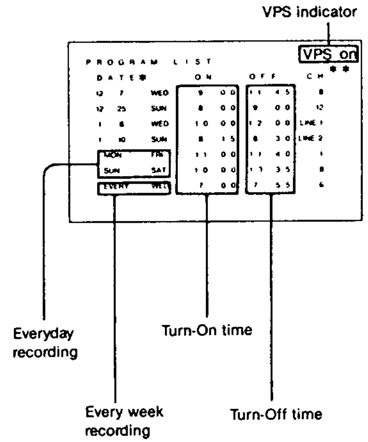
If the timer is set between 4:00 AM and 11:59 PM, the VTR is turned on at 0:00 AM to be prepared for recording, and will remain prepared until 4:00 AM of next day even if the preset programme does not begin.
If the timer is set between 0:00 AM and 3:59 AM, the VCR is turned on at 8:00 PM of the previous day to be prepared for recording and will remain prepared until 4:00 AM of next day even if the preset programme does not begin.

Notes
- You can set VPS to ON only when the TIMER REC indicator is off.
- If the station you want to record, fails to transmit the VPS code signal with the programme, or the VPS code cannot be detected for some reason by the VTR, recording will begin at the time you have preset.
- When the VTR receives a VPS programme interruption code during recording (for example, when an urgent news bulletin is inserted), it will stop recording. As soon as the interrupted programme resumes, recording will continue.
- The timer title cannot be recorded when VPS is set to ON.

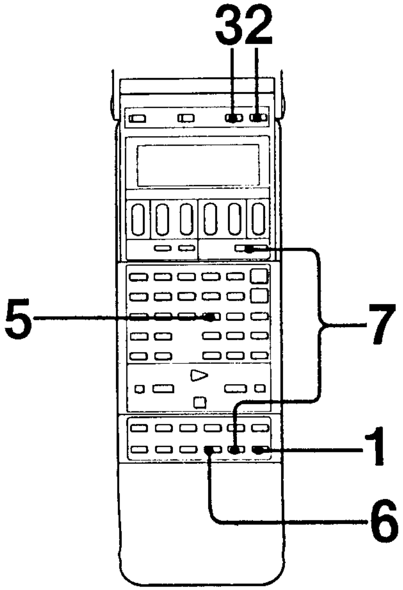
Multi-programme recording

The VPS function allows you to record several successive programmes.
Occasionally, these programmes may overlap or conflict with one another. If you are recording two successive programmes and the first is delayed past the starting time of the second, the second programme is recorded as scheduled. Recording of the first programme will not take place until the recording of the second is finished even though the broadcast of the first programme starts.

J7


VPS indicator
VPS on
PROGRAM LIST
DATE*
ON
OFF
CH
**
12 7 WED 9 00 11 45 8
12 25 SUN 8 00 9 00 12
1 6 WED 10 00 12 00 LINE 1
1 10 SUN 8 15 8 30 LINE 2
MON FRI 11 00 11 40 1
SUN SAT 10 00 11 35 8
EVERY WED 7 00 7 55 6
Everyday recording
Turn-On time
Every week recording
Turn-Off time

J8



Checking Timer Setting J7

Press TIMER DISPLAY on the commander to check the timer settings.
The programme list in the left column is displayed on the data screen.

Erasing the programme list

Press TIMER DISPLAY again.

Cancelling/Changing the Timer Settings

You can cancel/change the timer settings by using the commander or by using the buttons on the VTR.

Using the commander J8

1 **Press TIMER REC ON/OFF.**
The TIMER REC indicator disappear on the display window.

2 **Turn on the VTR.**

3 **Press TV/VTR to display the VTR indicator.**

4 **Set the TV programme selector for the VTR.**

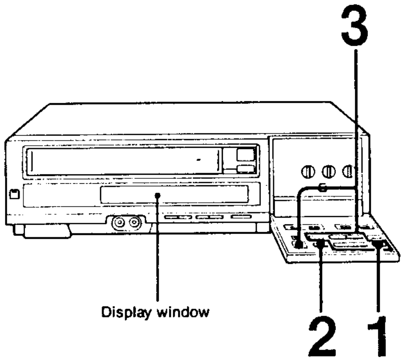
5 **Press TIMER DISPLAY.**
The programme list appears.

6 **Press TIMER CHECK and move the cursor by pressing TIMER CHECK to the setting you want to cancel/change.**

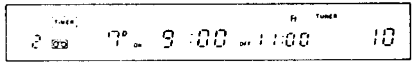
7 **To cancel the setting, press CLEAR.**
To change the setting, preset the data for the new recording while observing the liquid-crystal display, and press TRANSMIT.
The VTR enters to the standby mode for timer-activated recording.

On the program list
*The date is displayed in the following order: month and day.
**Program numbers are displayed.

J9


3
Display window
2
1

Display window



Using the buttons on the VTR J9

1 **Press TIMER REC ON/OFF.**
The TIMER REC indicator disappears on the display window.

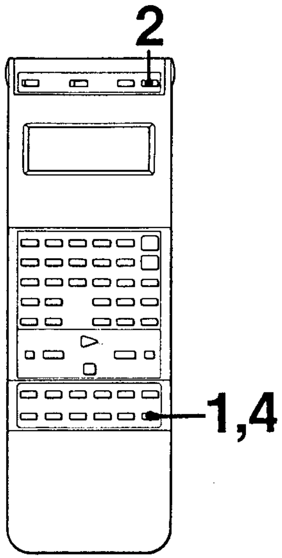
2 **Press CHECK again and again until the desired programme number appears.**

3 **To cancel the setting, press CLEAR.**
To change the setting,
1 Press TIMER SET.
2 Press NEXT again and again until the desired setting blinks.
3 Change the setting with Programme/Timer +/−.
4 Press NEXT again and agian until the programme indicator blinks.
5 Press NEXT again.
6 Press TIMER REC ON/OFF.

Notes on timer setting

- INPUT SELECT can be set anytime during timer setting.
- When changing the setting to make a timer recording of a programme from the equipment connected to the LINE IN 1, LINE IN 2 jack or EUROCONNECTOR, press INPUT SELECT to display the L1 or L2 indicator. (The programme indicator should not blink.) Then press NEXT.

J10



Using the VTR Before Timer-Activated Recording Starts

J10

1 **Press TIMER REC ON/OFF so that the TIMER REC indicator in the display window disappears.**

2 **Turn on the power of the VTR.**

3 **Operate the VTR.**

4 **Press TIMER REC ON/OFF again so that the TIMER REC indicator appears.**

Stopping a timer-activated recording after starting recording

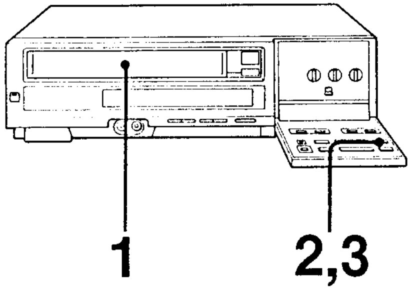
Press TIMER REC ON/OFF.
The tape stops and the power is turned off.

The buttons which can operate during timer recording

TIMER CHECK, COUNTER RESET, TV/VTR, EDIT MONITOR, TIMER DISPLAY are operable.
When you press TV/VTR, you can watch another programme.

1-13. QUICK TIMER RECORDING

K1



Why do you use this function?

Use this function when you want to begin recording a programme immediately and do something right away. The recording duration can be set for **up to 4 hours by 30-minute interval.**

Before operation

INPUT SELECT is set to TUNER (i.e. TUNER indicator appears.)

Operation K1

If you are recording now, perform only step 3.

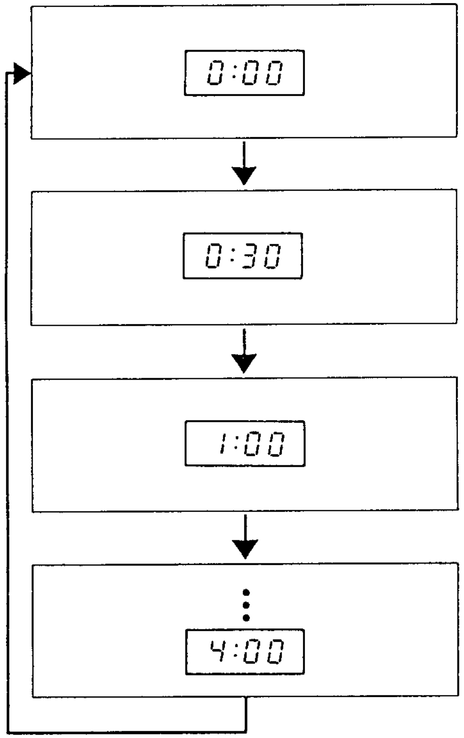
1 **Insert a cassette.**

2 **Press QUICK TIMER.**
You can change the programme with Programme/Timer +/− while the programme indicator is blinking.

3 **Press QUICK TIMER so that the recording starts. Now decide the recording duration.**
Every time you press QUICK TIMER, the recording duration displayed increases by 30 minutes up to 4 hours.

You can go out or sleep after turning off the TV. The power of the VTR is turned off automatically at the preset time.

K2



K2 Recording duration indication

Every time you press QUICK TIMER, the recording duration indication changes as follows:

The power will be turned off 30 seconds later. The current time will be displayed on the dispaly window.

↓

30 minutes

↓

one hour

↓

four hours

You can change the recording duration with QUICK TIMER even while quick timer recording. During recording, the displayed recording duration decreases minute by minute.

Operable buttons during quick timer recording

PAUSE	to stop quick timer recording momentarily
TIMER REC ON/OFF	to stop quick timer recording
QUICK TIMER	to change recording duration
TIMER DISPLAY	to check timer programmes preset
TIMER CHECK	to check timer programmes preset
COUNTER RESET	to reset the tape counter to zero
INDEX MARK	to record an index signal
EDIT MONITOR	to check the VTR
TV/VTR	to watch the picture broadcasted on another programme

While the VTR is in the standby mode for timer-activated recording
QUICK TIMER cannot operate when the TIMER REC indicator is displayed.
Press TIMER REC ON/OFF to make this indicator disappear, and then press QUICK TIMER.

When the tape reaches its end during quick timer operation
Recording stops and the power is turned off. The tape is not be rewound automatically.

When you insert the cassette whose safety tab is broken off
The cassette is ejected automatically when you press QUICK TIMER.

When a power interruption occurs during quick timer recording
Recording stops and the power is turned off. If power interruption lasts less than three hours and is recovered within quick timer setting time, recording starts again.

1-14. INDEX FUNCTION

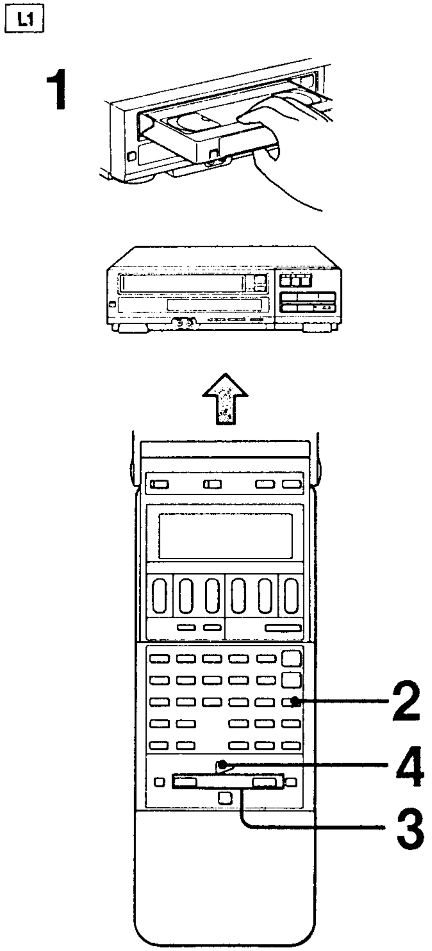
The desired programme can be easily located by the index signal marked on the tape.

Marking Index Signals

Automatic marking during recording
An index signal is automatically marked on the tape when a recording or a timer recording starts.
The INDEX indicator blinks on the display window while an index signal is being marked.

Marking index signals manually
Index signals can be marked at any desired point on the tape during recording, timer recording, normal playback or performing an insert edit.
Press INDEX MARK at the point where an index signal is to be marked.
The INDEX indicator blinks on the display window while an index signal is being marked.

Notes
- •Mark an index signal more 4 to 5 minutes after the previous index signal so that the VTR can detect it correctly.
- •While an index signal is being marked during playback, the recorded sound is not heard, but it is not erased.



Playing Back the Beginning of Each Programme in Sequence — INDEX SCAN L1

1 **Insert a cassette that has index signals marked.**

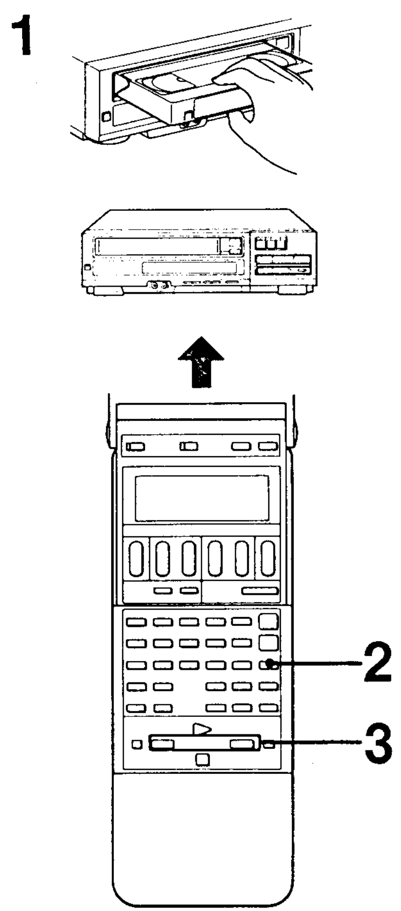
2 **Press INDEX once.**
The INDEX indicator blinks on the display window.

3 **To scan the previous programmes, press ◄◄ REW.**
To scan the programmes ahead, press ►► FF.
The INDEX SCAN indicator blink simultaneously during scanning.
The tape will be rewound or rapidly advanced to the next index signal marked.
The tape will be played back for approximately 10 seconds, and then rewound or advanced to the next index signal.
Every time an index signal is detected and playback begins, the displayed index number increases up to 19.

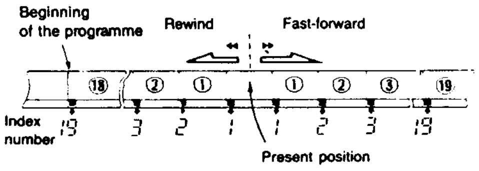
4 **At the desired programme, press PLAY.**
Normal playback of that programme will begin.

When you cannot mark an index signal
- •Index signals cannot be marked on the cassette tapes whose safety tab is broken off.
- •Index signals cannot be marked on the unrecorded portion of the tape.

L2



L3



Locating the Desired Programme — INDEX SEARCH

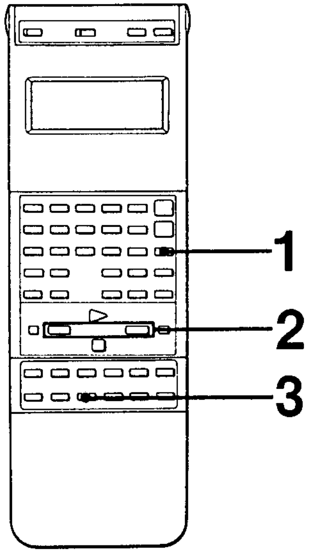
You can locate the desired programme and play it back automatically by designating the number of its index signal. L2 Up to 19th index signal from the present position on the tape can be located. L3

1 **Insert a cassette that has index signals marked.**

2 **Press INDEX several times until the index number of the desired programme is displayed.**
The INDEX indicator and the INDEX SEARCH number light up on the display window.

3 **To locate a previous programme on the tape, press ◄◄ REW.**
To locate a programme ahead, press ►► FF.
The tape will be rewound or rapidly advanced. Every time an index signal is detected, the INDEX SEARCH number will decrease. When the number reaches 0, playback of your desired programme will begin.

L4



Erasing Index Signals L4

You can erase unnecessary index signals.

1 **Press INDEX once.**

2 **Press ◄◄ REW or ►► FF.**
The tape is rewound or rapidly advanced. Every time an index signal is detected, the tape is played back and then rewound or advanced to the next index signal.

3 **Press ERASE within approx. 10 seconds after you have made sure of the playback picture.**
The index signal is erased, and then index scan resume.
While an index signal is being erased, the recorded sound is not heard, but it is not erased.

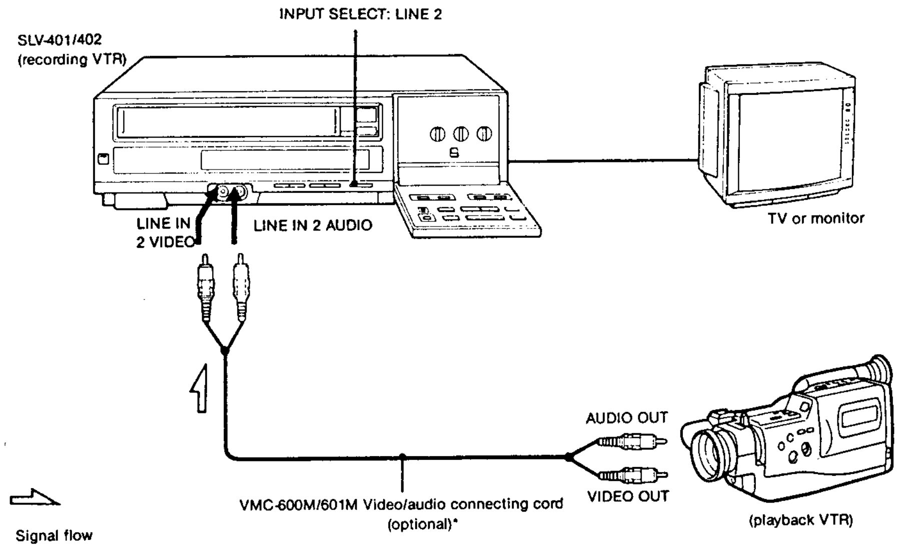
1-15. TAPE EDITING

To edit a home movie tape, you need two video cassette recorders.

If your other VTR is a Sony VTR equipped with control terminals, see page 59 and more for further systematic operations.

Editing a Home Movie Tape from Another VTR to This VTR

Example: From an 8mm video camera recorder to this VTR


INPUT SELECT: LINE 2
SLV-401/402
(recording VTR)
TV or monitor
LINE IN 2 VIDEO
LINE IN 2 AUDIO
AUDIO OUT
VIDEO OUT
VMC-600M/601M Video/audio connecting cord (optional)*
(playback VTR)
Signal flow

1 **Insert a recorded cassette into the 8mm video camera recorder and start playback.**

2 **Start recording with this VTR.**

This VTR's flying erase head allows continuous recordings without disturbance. When editing with another VTR, use this VTR for editing and the other VTR for playback.

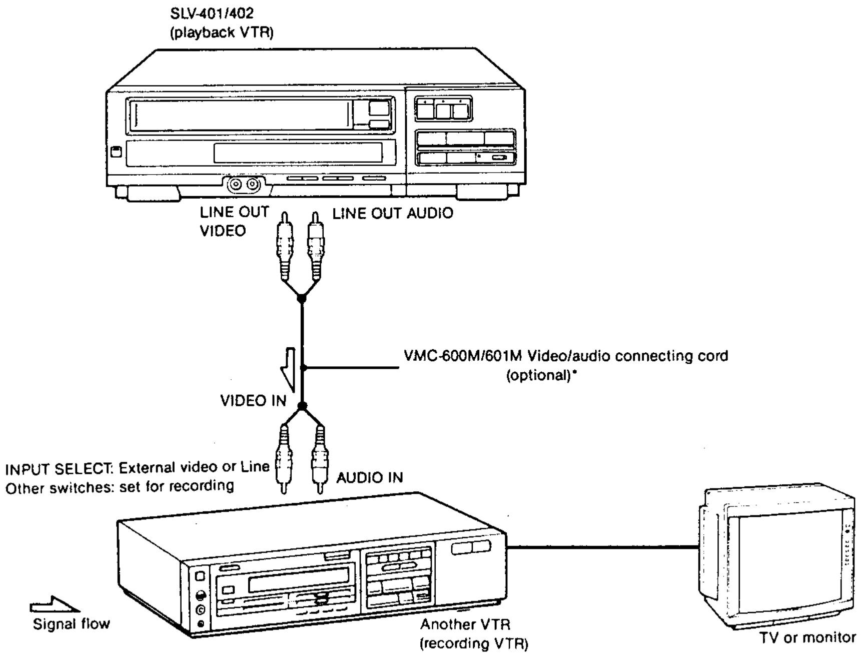
---

* If another VTR has the AUDIO L and R jacks, use the VMC-602MS/603MS (optional).

Note
When the video camera recorder is set to play back a high-speed picture, the screen of the TV or monitor may become dark.

Editing a Home Movie Tape from This VTR to Another VTR

Example: From this VTR to another VTR


SLV-401/402
(playback VTR)
LINE OUT VIDEO
LINE OUT AUDIO
VMC-600M/601M Video/audio connecting cord (optional)*
VIDEO IN
AUDIO IN
INPUT SELECT: External video or Line
Other switches: set for recording
Signal flow
Another VTR
(recording VTR)
TV or monitor

Note
Do not connect another VTR to both the LINE IN and LINE OUT jacks of this VTR. This may cause hum noise.

---

* If another VTR has the AUDIO L and R jacks, use the VMC-602MS/603MS (optional).

1-16. EDITING WITH A SONY VTR EQUIPPED WITH A CONTROL TERMINAL—SYNCHRONIUED EDITING

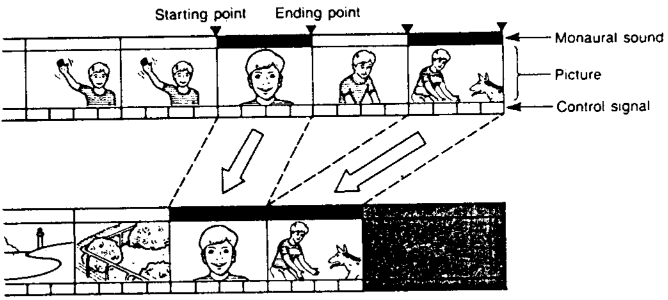
If you have another Sony VTR equipped with control termianls, such as a CONTROL S or L jack, connect the control terminals of the other VTR and this VTR in addition to the video and audio connections. With this connection, you can start playback, momentarily stop, start recording the tape at the particular point selected by the other VTR simultaneously.

Assemble editing

The desired scenes of the original tape can be "assembled" (recorded) onto another tape successively. The video, audio and control signals are edited together. This kind of editing is convenient for editing with a VTR with a control terminal. You can cut, for example, the portion where the ground was unexpectedly recorded or the same scene continued to be recorded for a long time.

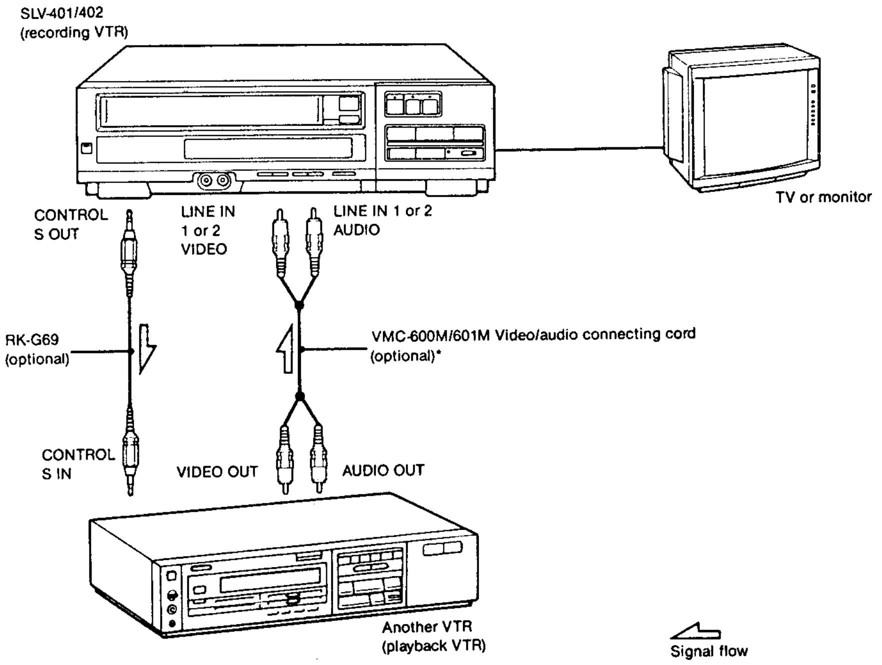
Original tape (playback VTR)

Edited tape (recording VTR)


Starting point
Ending point
Monaural sound
Picture
Control signal

Connecting a VTR Equipped with a Control S Jack

Editing from the other VTR to this VTR

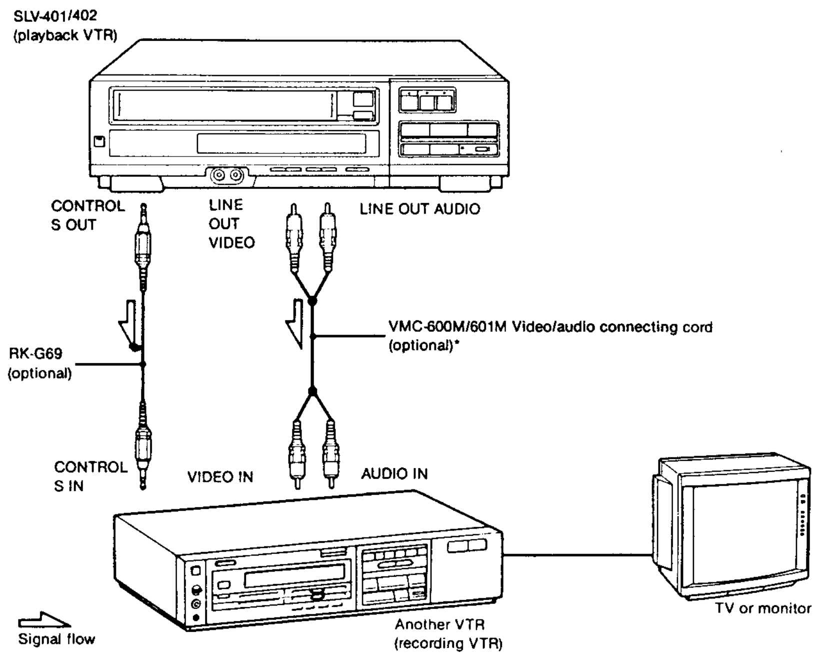

SLV-401/402
(recording VTR)
TV or monitor
CONTROL
S OUT
LINE IN
1 or 2
VIDEO
LINE IN 1 or 2
AUDIO
RK-G69
(optional)
VMC-600M/601M Video/audio connecting cord
(optional)*
CONTROL
S IN
VIDEO OUT
AUDIO OUT
Another VTR
(playback VTR)
Signal flow

---

* If another VTR has the AUDIO L and R jacks, use the VMC-602MS/603MS (optional).

Connecting a VTR Equipped with a Control S Jack

Editing from this VTR to another VTR

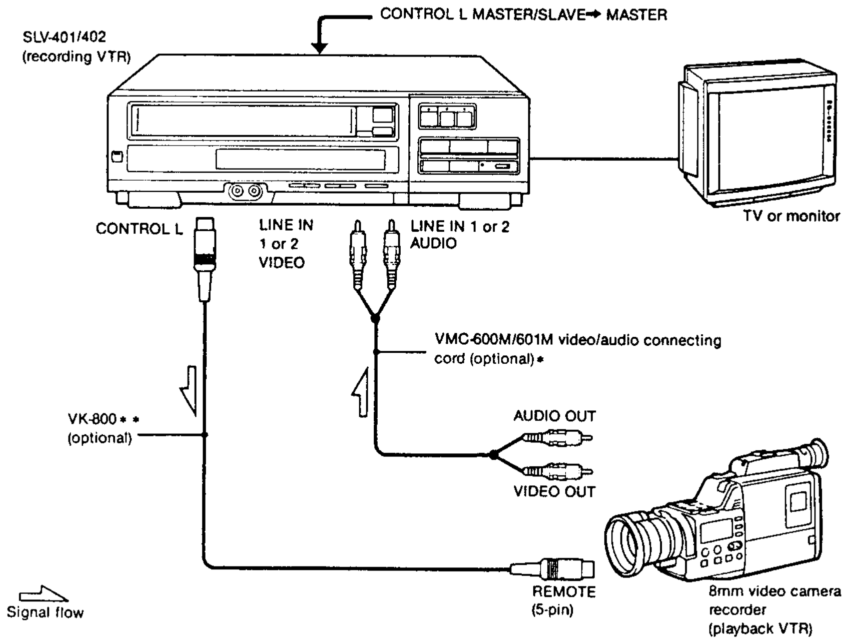

SLV-401/402
(playback VTR)
CONTROL S OUT
LINE OUT VIDEO
LINE OUT AUDIO
VMC-600M/601M Video/audio connecting cord (optional)*
RK-G69 (optional)
CONTROL S IN
VIDEO IN
AUDIO IN
Signal flow
Another VTR
(recording VTR)
TV or monitor

---

* If another VTR has the AUDIO L and R jacks, use the VMC-602MS/603MS (optional).

Connecting a VTR Equipped with a Control L Jack

You can edit the tape played back with the 8mm video camera recorder equipped with a 5-pin remote terminal.


CONTROL L MASTER/SLAVE→ MASTER
SLV-401/402
(recording VTR)
TV or monitor
CONTROL L
LINE IN 1 or 2 VIDEO
LINE IN 1 or 2 AUDIO
VMC-600M/601M video/audio connecting cord (optional)*
VK-800** (optional)
AUDIO OUT
VIDEO OUT
Signal flow
REMOTE (5-pin)
8mm video camera recorder
(playback VTR)

Note

When the video camera recorder is set to play back a high-speed picture, the screen of the TV or monitor may become dark.

---

* If another VTR has the AUDIO L and R jacks, use the VMC-602MS/603MS (optional).

** If the REMOTE connector of the connected 8mm VTR is a stereo mini jack, use VK-810.

System expansion

If you connect a RM-E100V editing controller (optional) and two VTRs, up to 8 desired scenes of the original tape can be automatically assembled.

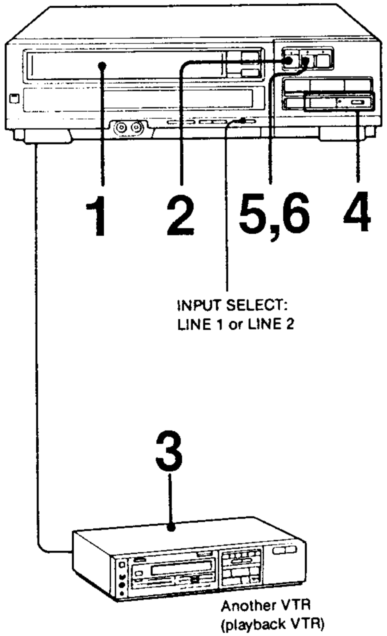
CONTROL L MASTER/SLAVE switch setting

When you connect the optional RM-E100V editing controller or RM-94/RM-84 remote controller, be sure to set CONTROL L MASTER/SLAVE to SLAVE.

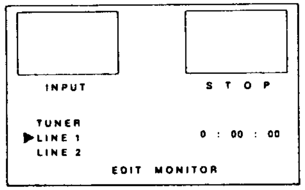
Use this VTR as the recorder

It is recommended to use this VTR as the recorder because this VTR is equipped a flying erase head to produce high quality editing.

M1



M2



Synchronized Editing — From Another VTR to This VTR M1

See pages 59 and 61 for connections.

1 **Insert a cassette.**
The power is turned on automatically.

2 **Press EDIT MONITOR.** M2
The following display appears on the TV or monitor.

3 **Play back the tape of the other VTR to find the desired scene and set the VTR in the playback pause.**

4 **Slide ●RECORD to the right while pressing II/▶◀ PAUSE/STILL on this VTR at the start point to edit.**

5 **Press SYNC EDIT.**
Both VTRs exit from the pause and editing starts.

6 **Press SYNC EDIT again at the end point.**
This VTR is set in the recording pause, and another VTR is set in the playback pause.

For other scenes, repeat steps 3, 5 and 6.
To finish editing, press ■STOP. on both VTRs.

Note
This VTR can record pictures played back at variable speeds so you can make a tape with scenes in slow motion or double-speed during editing (while the SYNC EDIT button lights up.)

Synchronized Editing — From This VTR to Another VTR

See page 60 for connections.

1 **Insert a cassette into the both VTRs.**

2 **Locate the desired scene on this VTR while observing the playback picture, and then set this VTR in the playback pause.**

3 **Locate the starting point to edit on another VTR, and set the VTR in the recording pause.**

4 **Press SYNC EDIT.**

5 **Press SYNC EDIT at the ending point.**

For other scenes, repeat steps 2, 4 and 5.
To finish editing, press ■ STOP on both VTRs.

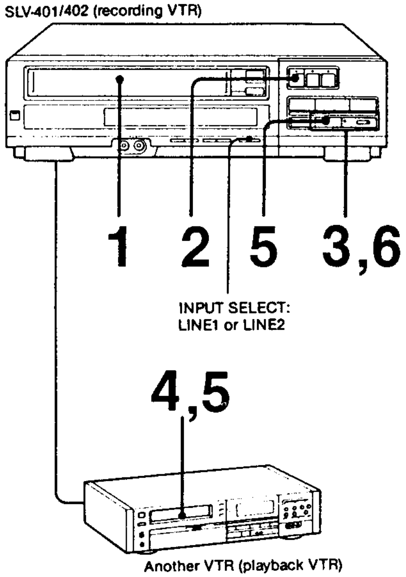
Note
Do not operate the buttons on either this VTR, the other one, or the wireless commander during editing. Otherwise, a malfunction may occur.

If you use the synchronized editing function of another Sony VTR
When you connect another VTR through the CONTROL S jack, set COMMAND MODE of this VTR to VTR1 or VTR2. Otherwise, this VTR cannot operate.

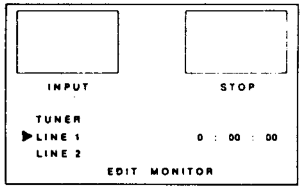
Pre-recorded tape
If you try to insert a scene into a pre-recorded tape, the picture inserted will be distorted. To insert a scene, perform insert editing.

1-17. MANUAL EDITING WITH A VTR NOT EQUIPPED WITH A CONTROL TERMINAL

N1


SLV-401/402 (recording VTR)
1
2
5
3,6
INPUT SELECT:
LINE1 or LINE2
4,5
Another VTR (playback VTR)

N2


INPUT
STOP
TUNER
▶LINE 1
LINE 2
0 : 00 : 00
EDIT MONITOR

N1

1 **Insert a cassette.**
The power is turned on automatically.

2 **Press EDIT MONITOR.**
The edit monitor appears on the TV or monitor. **N2**

3 **Slide ● RECORD to the right while pressing ❚❚/▶◀ PAUSE/STILL simultaneously on this VTR.**

4 **Locate the desired scene on the other VTR and set it in the playback pause.**

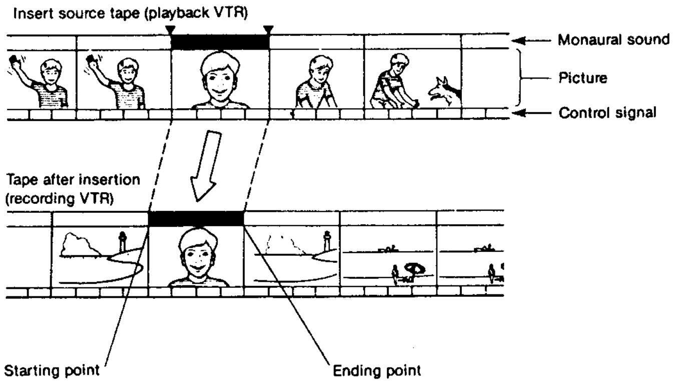
5 **Release the playback and recording pause of both VTRs by pressing ❚❚/▶◀ PAUSE/STILL simultaneously.**
Editing starts.

6 **Press ❚❚/▶◀ PAUSE/STILL of this VTR at the ending point.**

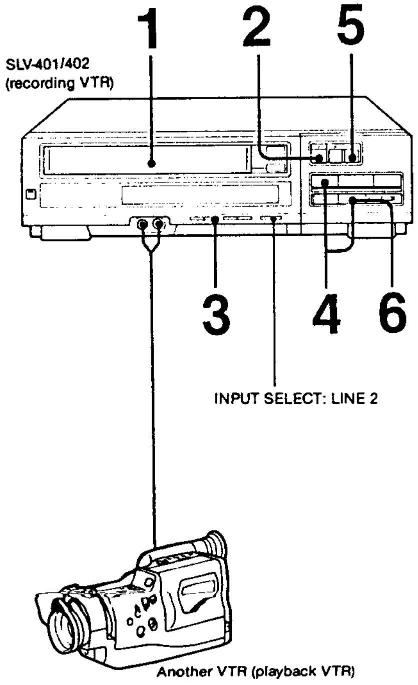
For other scenes, repeat steps 4 to 6.
To finish editing, press ■ STOP on both VTRs.

1-18. INSERTING NEW SCENE ONTO A PRE-RECORDED TAPE—INSERT EDITING

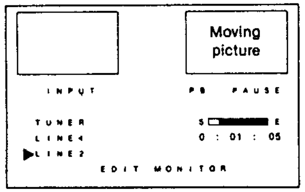
01


Insert source tape (playback VTR)
Monaural sound
Picture
Control signal
Tape after insertion (recording VTR)
Starting point
Ending point

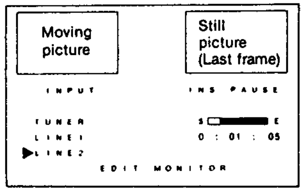
02


1
2
5
SLV-401/402 (recording VTR)
3
4
6
INPUT SELECT: LINE 2
Another VTR (playback VTR)

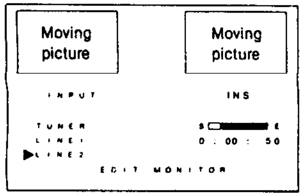
03


Moving picture
INPUT
PB PAUSE
TUNER
LINE 1
▶LINE 2
S E
0 : 01 : 05
EDIT MONITOR

04


Moving picture
Still picture (Last frame)
INPUT
INS PAUSE
TUNER
LINE 1
▶LINE 2
S E
0 : 01 : 05
EDIT MONITOR

05


Moving picture
Moving picture
INPUT
INS
TUNER
LINE 1
▶LINE 2
S E
0 : 00 : 50
EDIT MONITOR

Insert editing 01

You can easily insert (re-record) a new scene onto a pre-recorded tape.
This editing is useful to replace an unnecessary scene with another scene.
Assign the editing points on the recording VTR.

You can select the scenes to be inserted from among the TV and the equipment connected through LINE IN1 or 2 with INPUT SELECT.

Operation of Insert Editing 02

1. **Insert a cassette.**
   The power is turned on automatically.
2. **Press EDIT MONITOR.**
3. **With observing the right picture, locate the ending point and press COUNTER RESET.**
   The time counter is reset to "0H00M00S" and the ending point is stored in the memory.
4. **Rewind the tape to find the starting point and press ıı/▸◂ PAUSE/STILL.** 03
5. **Press INSERT.**
   The last frame of picture remains in the right picture. 04
6. **With observing the left picture, locate the scene to be inserted on the other VTR and set it in the playback pause.**
7. **Release the playback and recording pause of the VTRs.** 05
   Insert editing starts and finishes at the end point "0H00M00S". The plaback VTR continues playing back.

Note

When the video camera recorder is set to play back a high-speed picture, the picture on the left side of the TV or monitor may become dark.

1-19. TROUBLE CHECKS

If any difficulty should arise during operation, first check the power cord connection, then go through the following list.
Should the difficulty persist, unplug the unit and contact your Sony dealer or local authorized Sony service facility.

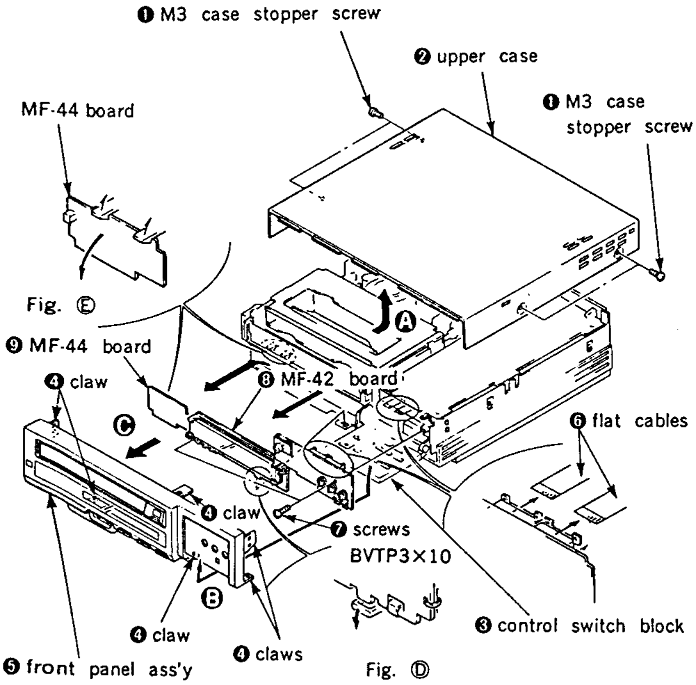
	Sympton	Possible causes
POWER	The ON/STANDBY switch does not function.	•The power cord is disconnected. •The VTR is in the timer standby mode.
	The power is turned on, but the unit does not operate.	The safety device on the unit has activated. Turn the power off, disconnect the power cord from the wall outlet and leave the unit for more than one minute.
CLOCK AND TIMER	The clock has stopped and " 0:00" is blinking.	There has been a power interruption. Reset the date, clock time and timer setting.
TV RECEPTION	TV programme is not clearly displayed on the TV screen.	•The programme for VTR is not correctly tuned on the TV receiver. •The TV signal is weak. Adjust the direction of the antenna. •The AC power cord of the VTR is disconnected.
RECORDING AND PLAYBACK	Noisy picture during recording	•The TV's channel is not set to that preset for the VTR. •The TV signal is weak. Adjust the direction of the antenna.
	No picture on the TV screen	•Press TV/VTR so that the VTR indicator appears in the display window. •The TV's programme is not set for a VTR, or the video input has not been selected at the monitor.
	Recording cannot be made.	•No cassette is inserted. •The tape is at its end. •INPUT SELECT is not set correctly.
	The playback picture is not clear.	•The channel for VTR is not correctly tuned on the TV receiver. •The tape recorded by another VTR is played back. •The video heads are contaminated. •If you use a commercially available wet-type cleaning cassette, it may damage the video heads. •The video heads are rubbed off. •Adjust SHARPNESS. •Adjust TRACKING.
	The picture moves vertically during picture search mode.	Adjust the vertical hold control on the TV or colour monitor.

	Sympton	Possible causes
TIMER RECORDING	Sound drop-outs	The tape is defective. Use a new video cassette tape.
	Timer setting cannot be made.	The current time has not been preset.
	The TIMER indicator disappears even though you pressed TIMER REC ON/OFF.	•No cassette is inserted. •The tape is at its end.
	The cassette is ejected when you press TIMER REC ON/OFF.	The safety tab of the cassette was broken off.
	Timer recording could not be made.	•There has been a power interruption of 3 or more hours. •TIMER REC ON/OFF was not pressed.
DATA SCREEN	The data screen disappear.	•Press ⊕ (display) button. •The TV or colour monitor is connected through the LINE OUT jack.
OTHERS	Cassette cannot be inserted.	Another cassette has been inserted.
	The commander cannot operate.	•The COMMAND MODE switch has not been set correctly. •The batteries are exhausted.

SECTION 2
DISASSEMBLY

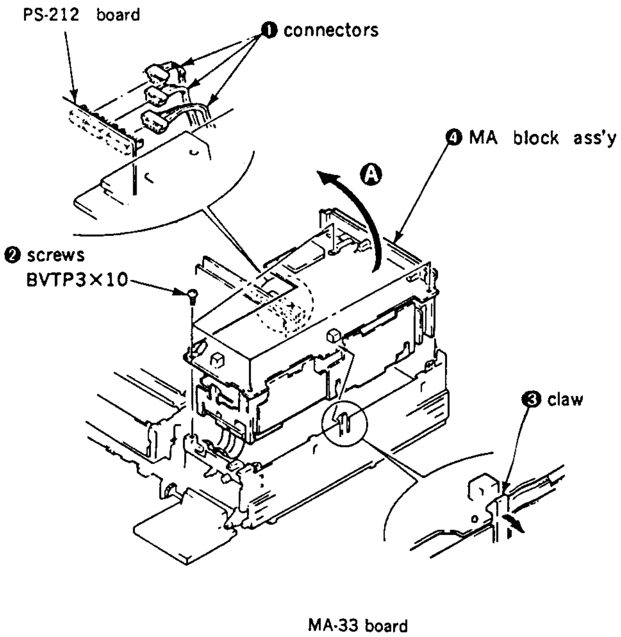
2-1. REMOVAL OF UPPER CASE, FRONT PANEL ASSEMBLY MF-42 AND MF-44 BOARDS

1) Remove four side wood screws. Then the side plate assemblies and the upper case ❷ are off.
2) Remove four M3 case stopper screws ❶ and then the upper case ❷ in the arrow Ⓐ direction.
3) Lay down the control switch block ❸ in panel the arrow Ⓑ direction and remove the front assembly ❺ in the arrow Ⓒ direction by releasing six claws ❹ from the chassis.
4) Disconnect the flat cables ❻ and remove two screws (BVTP3×10)❼.
5) Remove MF-42 board ❽ by releasing itself from the chassis as shown by Fig. Ⓓ.
6) Remove MF-44 board ❾ by releasing itself from the chassis as shown by Fig. Ⓔ.


❶ M3 case stopper screw
❷ upper case
❶ M3 case stopper screw
MF-44 board
Fig. Ⓔ
❾ MF-44 board
❹ claw
Ⓐ
❽ MF-42 board
Ⓒ
❻ flat cables
❹ claw
❼ screws BVTP3×10
Ⓑ
❹ claw
❹ claws
❺ front panel ass'y
Fig. Ⓓ
❸ control switch block

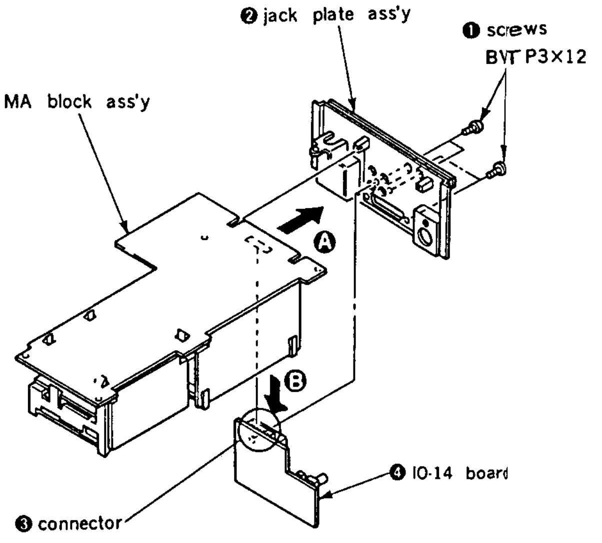
2-2. REMOVAL OF MA BLOCK ASSEMBLY

1) Disconnect the connectors ❶ from PS-212 board.
2) Remove four screws (BVTP3×10) ❷.
3) Release the claw ❸ from MA-33 board, and simultaneously raise up the MA block assembly ❹ in the arrow Ⓐ direction.


PS-212 board
❶ connectors
❹ MA block ass'y
Ⓐ
❷ screws BVTP3×10
❸ claw
MA-33 board

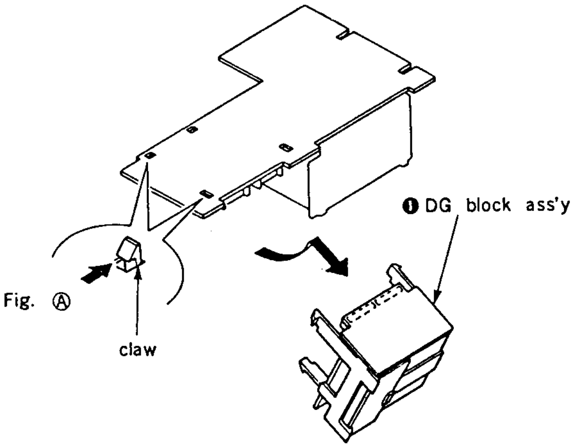
2-3. REMOVAL OF IO-14 BOARD AND JACK PLATE ASSEMBLY

1) Remove four screws (BVTP3×12) and then the jack plate assembly ❷ is off.
2) Remove IO-14 board ❹ by disconnecting the connector ❸ from MA-33 board.


❷ jack plate ass'y
❶ screws BVTP3×12
MA block ass'y
Ⓐ
Ⓑ
❹ IO-14 board
❸ connector

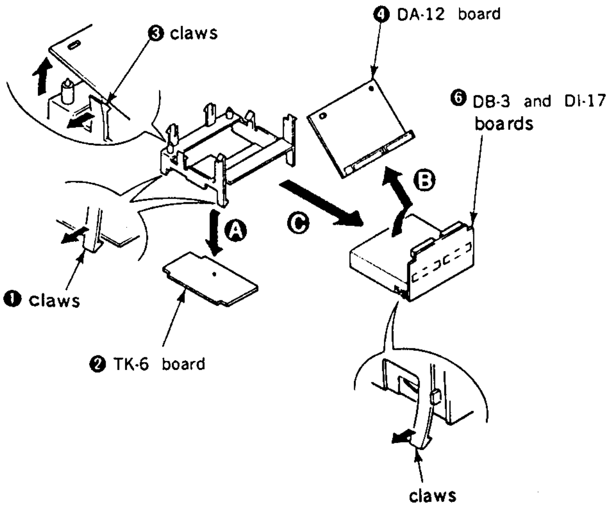
2-4. REMOVAL OF DG BLOCK ASSEMBLY

1) Remove DG block assembly ❶ by releasing the claws as shown by Fig. Ⓐ.


❶ DG block ass'y
Fig. Ⓐ
claw

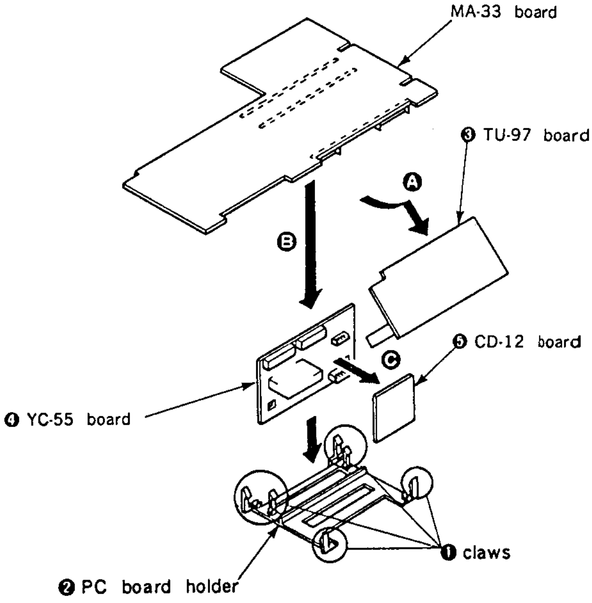
2-5. REMOVAL OF DA-12, DB-3, DI-17, AND TK-6 BOARDS

1) Remove TK-6 board ❷ in the arrow Ⓐ direction by releasing two claws ❶.
2) Release two claws ❸ and simultaneously raise up DA-12 board ❹.
3) Remove DA-12 board ❹ in the arrow Ⓑ direction by disconnecting the connectors from DI-17 board.
4) Remove DB-3 and DI-17 boards ❻ by releasing two claws ❺.


❸ claws
❹ DA-12 board
❻ DB-3 and DI-17 boards
Ⓑ
Ⓐ
Ⓒ
❶ claws
❷ TK-6 board
claws

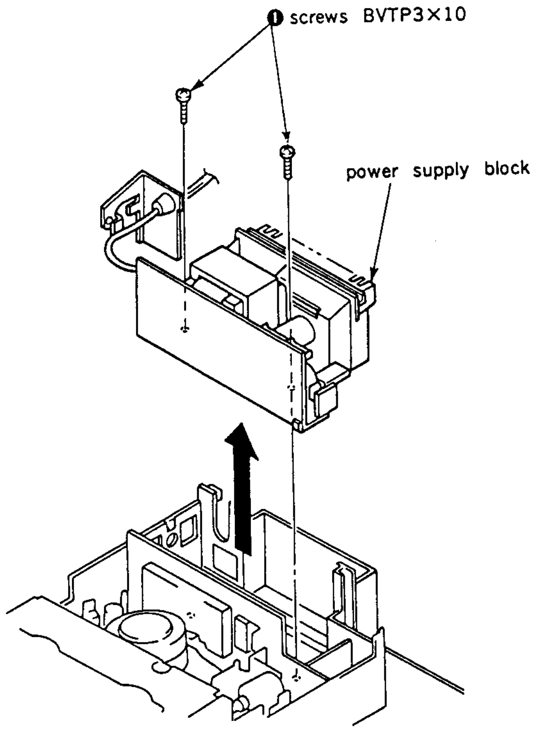
2-6. REMOVAL OF MA-33, TU-97, YC-55, CD-12 BOARDS

1) Release the claws ❶ from PC boards, then the PC board holder ❷ is off.
2) Remove TU-97 board ❸ in the arrow Ⓐ direction, and YC-55 board ❹ with CD-12 board ❺ in the arrow Ⓑ direction by disconnecting connectors from MA-33 board.
3) Remove CD-12 board ❺ in the arrow Ⓒ direction by disconnecting connectors from YC-55 board.


MA-33 board
❸ TU-97 board
Ⓐ
Ⓑ
❺ CD-12 board
Ⓒ
❹ YC-55 board
❶ claws
❷ PC board holder

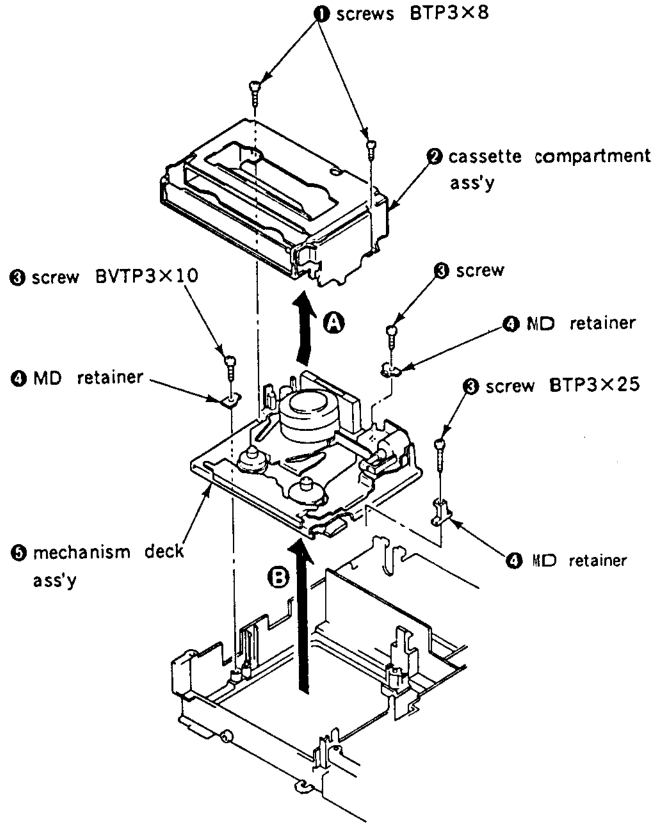
2-7. REMOVAL OF POWER SUPPLY BLOCK

1) Remove four screws (BVTP 3×10), and then the power supply block in the arrow direction.


❶ screws BVTP3X10
power supply block

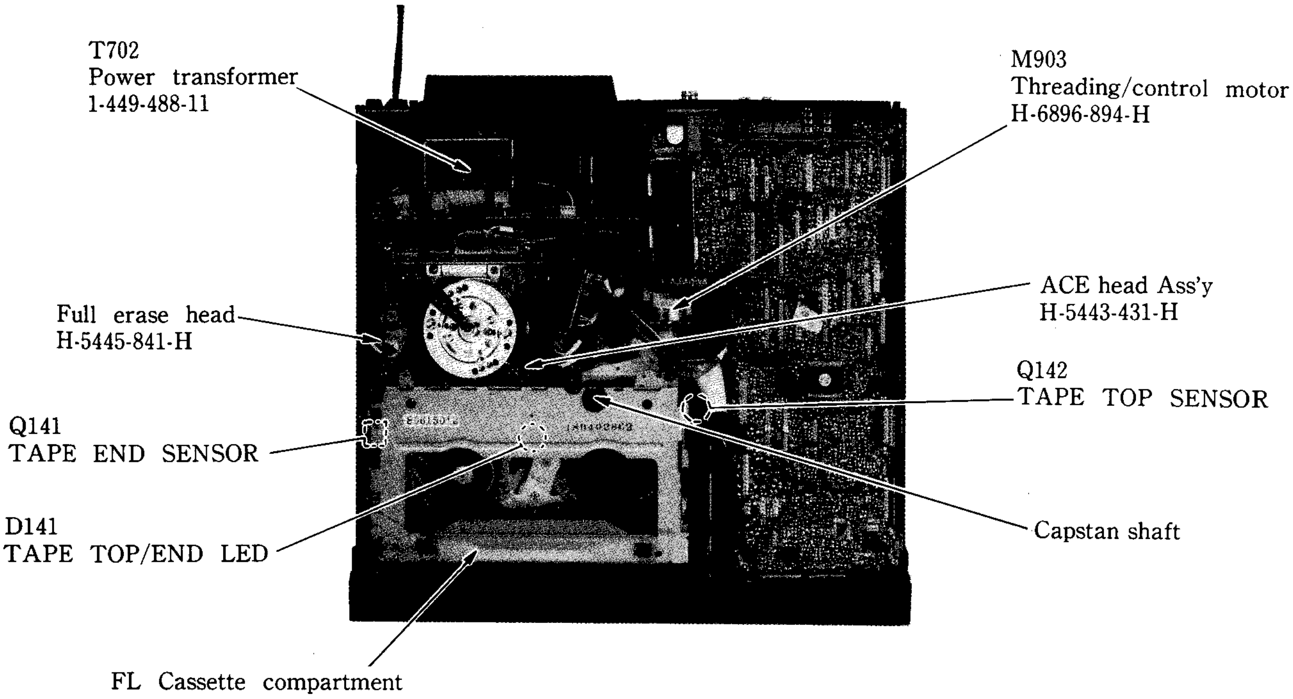
2-8. REMOVAL OF CASSETTE COMPARTMENT ASSEMBLY AND MECHANISM DECK ASSEMBLY

1) Romove the cassette compartment assembly ❷ in the arrow Ⓐ direction by removing two screws (BVTP3×8) ❶.
2) Remove three screws ❸ and then the MD retainers ❹ are off.
3) Then remove the mechanism deck assembly ❺ in the arrow Ⓑ direction.

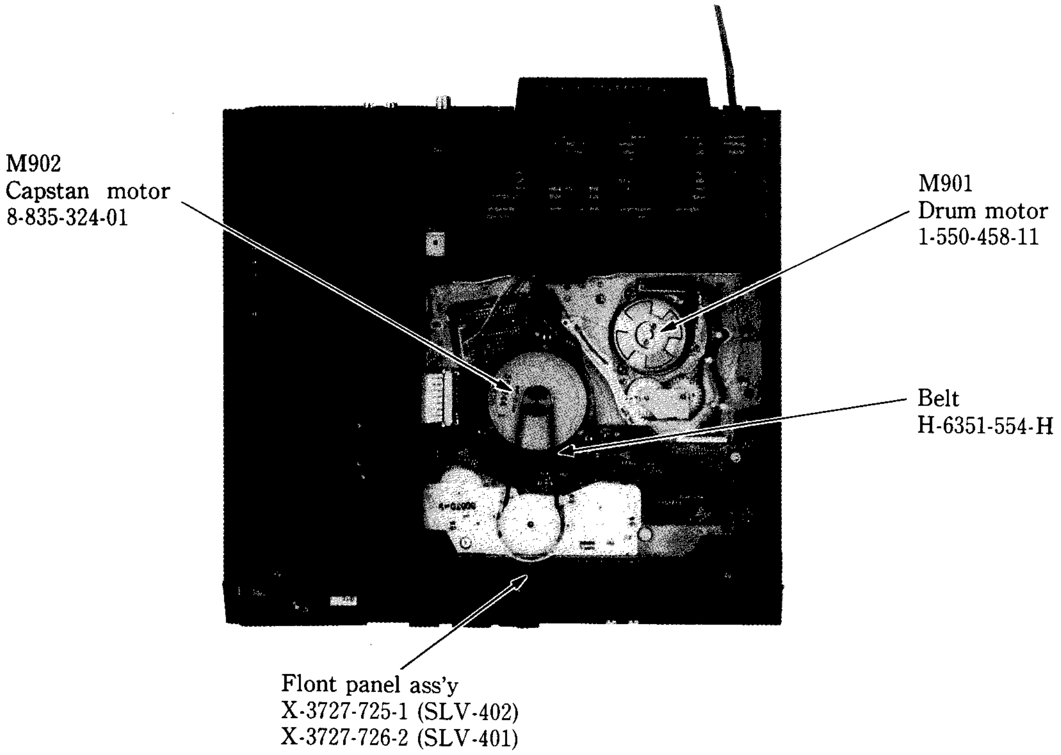

❶ screws BTP3X8
❷ cassette compartment ass'y
❸ screw BVTP3X10
❸ screw
Ⓐ
❹ MD retainer
❹ MD retainer
❸ screw BTP3X25
❺ mechanism deck ass'y
Ⓑ
❹ MD retainer

2-9. INTERNAL VIEWS

—— Top side ——
This photo is SLV-402

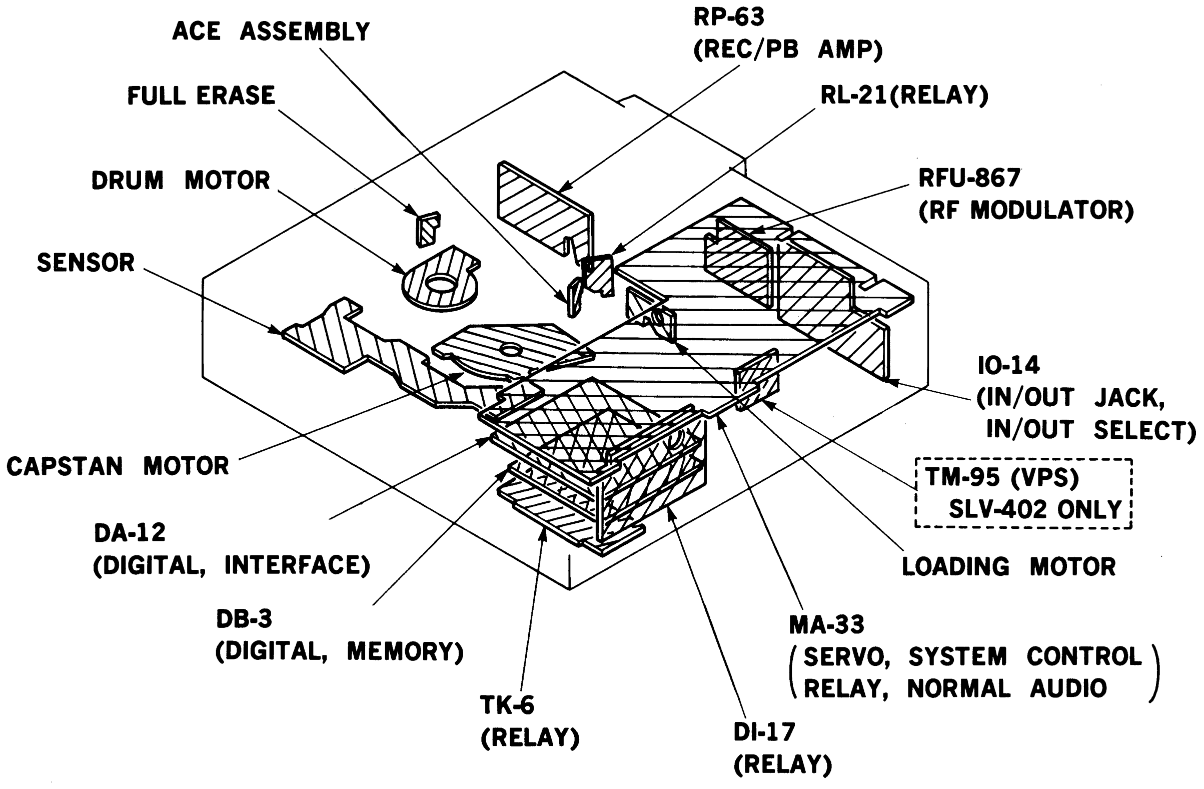

T702
Power transformer
1-449-488-11
M903
Threading/control motor
H-6896-894-H
Full erase head
H-5445-841-H
ACE head Ass'y
H-5443-431-H
Q142
TAPE TOP SENSOR
Q141
TAPE END SENSOR
D141
TAPE TOP/END LED
Capstan shaft
FL Cassette compartment

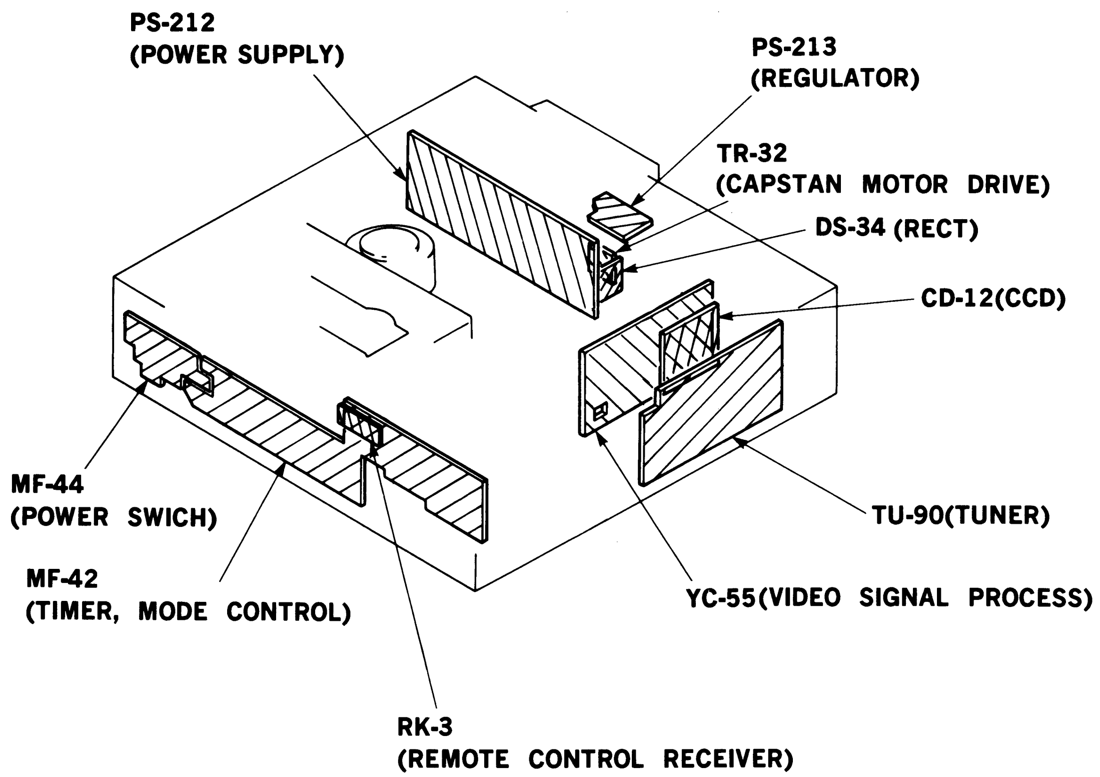
—— Bottom side ——
This photo is SLV-402


M902
Capstan motor
8-835-324-01
M901
Drum motor
1-550-458-11
Belt
H-6351-554-H
Flont panel ass'y
X-3727-725-1 (SLV-402)
X-3727-726-2 (SLV-401)

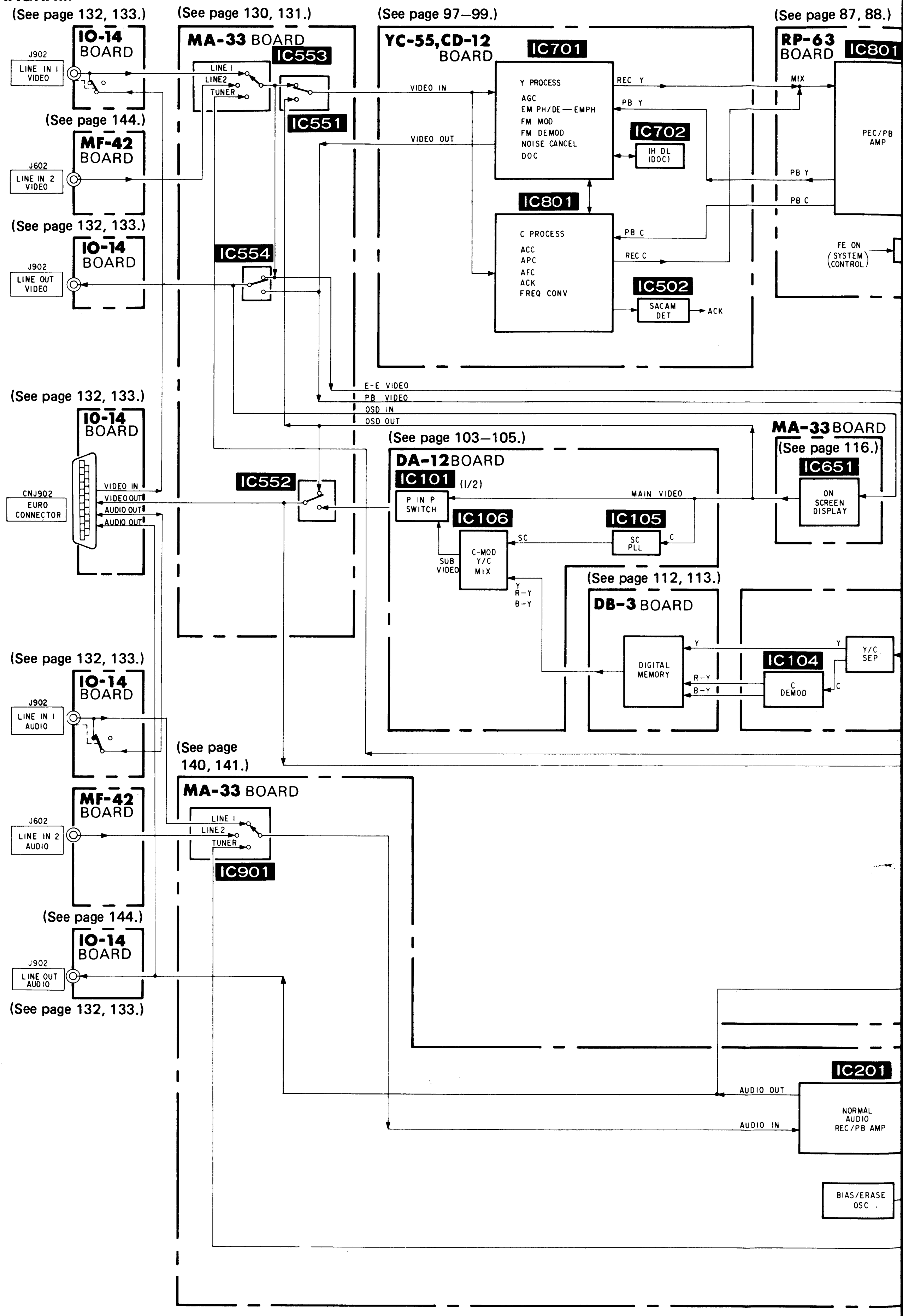
SECTION 3
DIAGRAMS

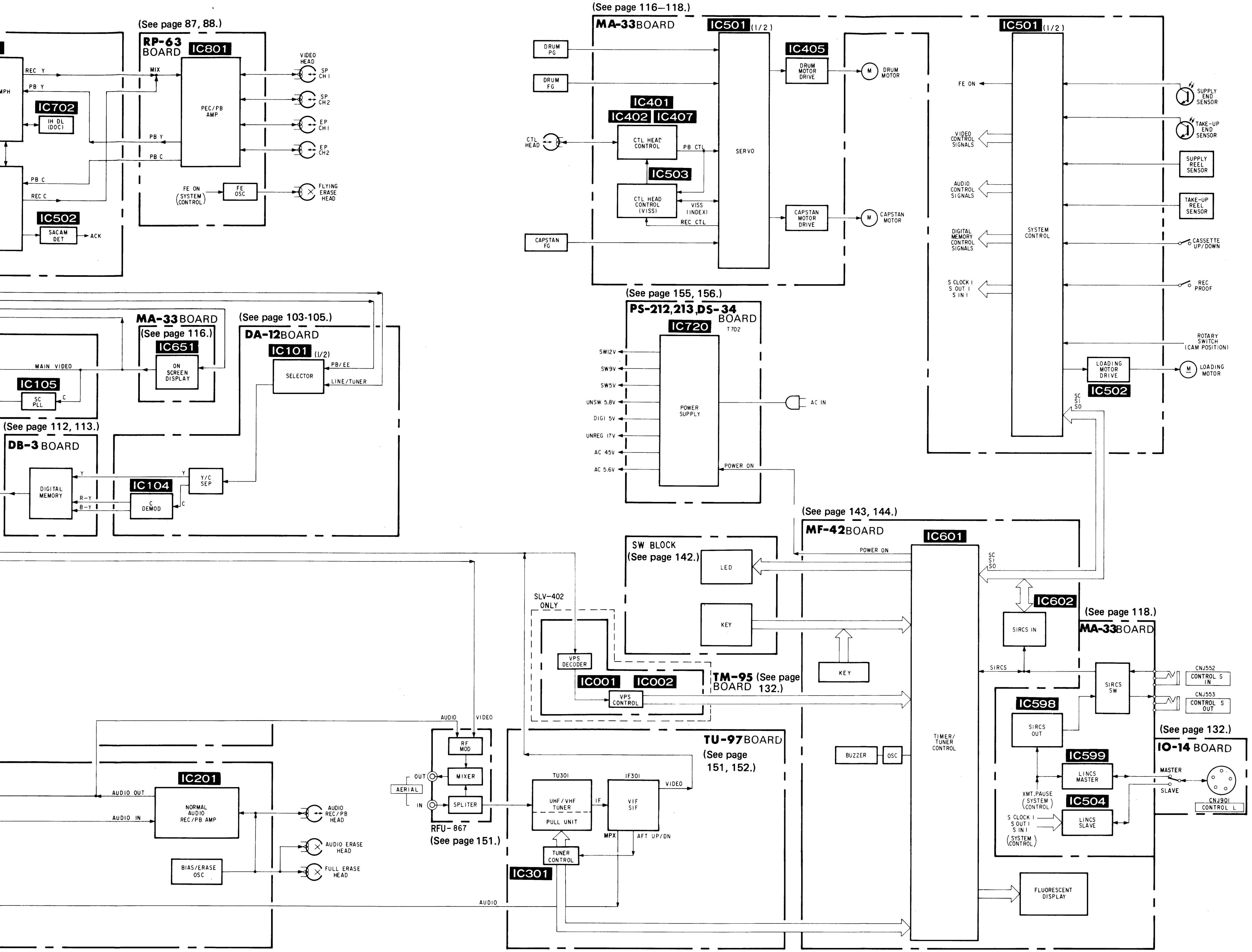
3-1. CIRCUIT BOARDS LOCATION


ACE ASSEMBLY
FULL ERASE
DRUM MOTOR
SENSOR
CAPSTAN MOTOR
DA-12
(DIGITAL, INTERFACE)
DB-3
(DIGITAL, MEMORY)
TK-6
(RELAY)
DI-17
(RELAY)
MA-33
(SERVO, SYSTEM CONTROL
RELAY, NORMAL AUDIO)
LOADING MOTOR
TM-95 (VPS)
SLV-402 ONLY
IO-14
(IN/OUT JACK,
IN/OUT SELECT)
RFU-867
(RF MODULATOR)
RL-21(RELAY)
RP-63
(REC/PB AMP)

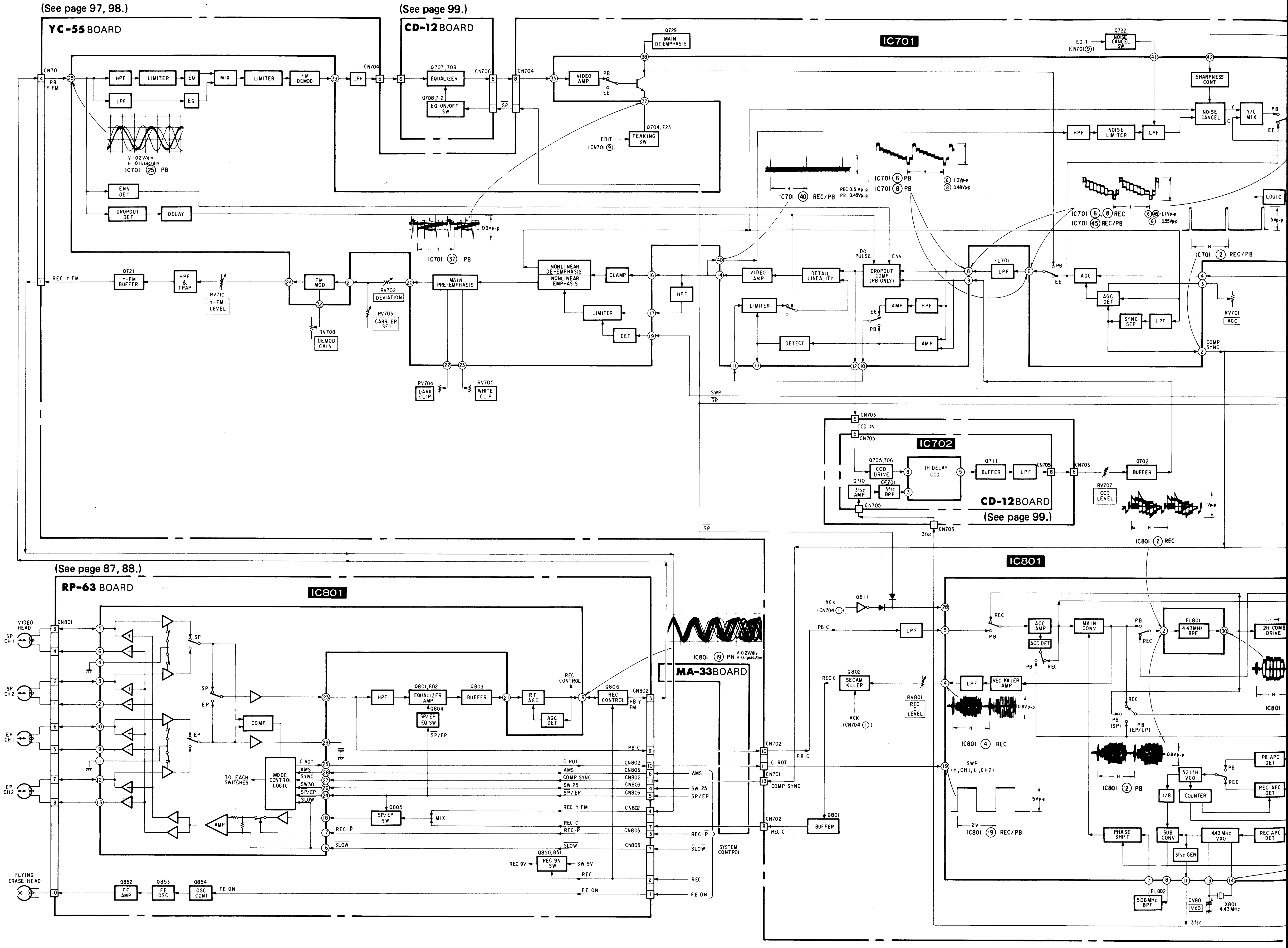

PS-212
(POWER SUPPLY)
PS-213
(REGULATOR)
TR-32
(CAPSTAN MOTOR DRIVE)
DS-34 (RECT)
CD-12(CCD)
TU-90(TUNER)
YC-55(VIDEO SIGNAL PROCESS)
RK-3
(REMOTE CONTROL RECEIVER)
MF-42
(TIMER, MODE CONTROL)
MF-44
(POWER SWICH)

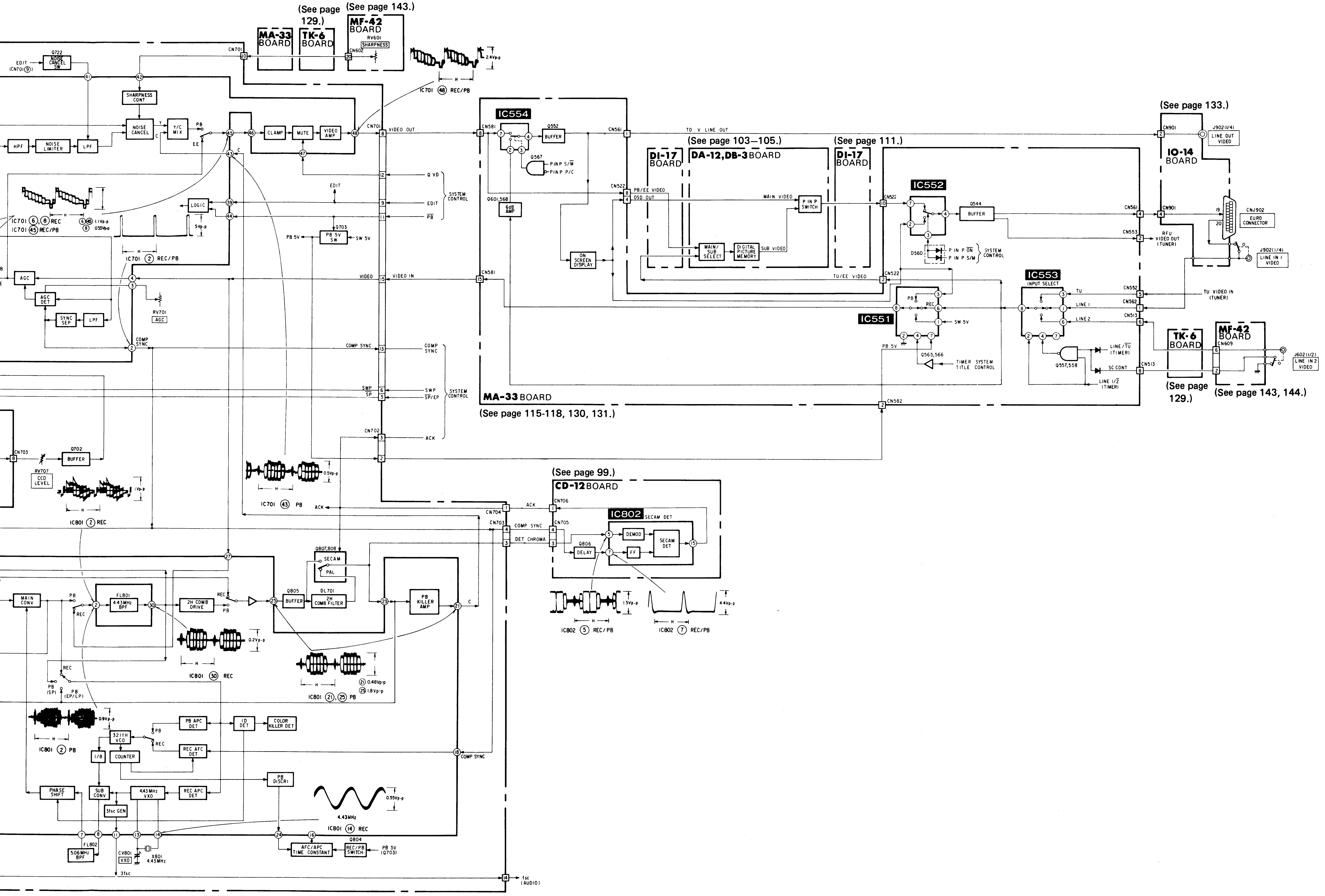
3-2. OVERALL BLOCK DIAGRAM


(See page 132, 133.)
IO-14 BOARD
J902
LINE IN 1 VIDEO
(See page 144.)
MF-42 BOARD
J602
LINE IN 2 VIDEO
(See page 132, 133.)
IO-14 BOARD
J902
LINE OUT VIDEO
(See page 130, 131.)
MA-33 BOARD
IC553
LINE 1
LINE2
TUNER
IC551
IC554
(See page 97—99.)
YC-55,CD-12 BOARD
IC701
VIDEO IN
VIDEO OUT
Y PROCESS
AGC
EM PH/DE — EMPH
FM MOD
FM DEMOD
NOISE CANCEL
DOC
REC Y
PB Y
IC702
IH DL (DOC)
IC801
C PROCESS
ACC
APC
AFC
ACK
FREQ CONV
PB C
REC C
IC502
SACAM DET
ACK
(See page 87, 88.)
RP-63 BOARD
IC801
MIX
PEC/PB AMP
PB Y
PB C
FE ON (SYSTEM CONTROL)
E-E VIDEO
PB VIDEO
OSD IN
OSD OUT
(See page 132, 133.)
IO-14 BOARD
CNJ902
EURO CONNECTOR
VIDEO IN
VIDEO OUT
AUDIO OUT
AUDIO OUT
IC552
(See page 103—105.)
DA-12 BOARD
IC101 (1/2)
P IN P SWITCH
IC106
C-MOD Y/C MIX
SUB VIDEO
SC
Y
R-Y
B-Y
IC105
SC PLL
C
MAIN VIDEO
MA-33 BOARD
(See page 116.)
IC651
ON SCREEN DISPLAY
(See page 112, 113.)
DB-3 BOARD
DIGITAL MEMORY
Y
R-Y
B-Y
IC104
C DEMOD
C
Y
Y/C SEP
(See page 132, 133.)
IO-14 BOARD
J902
LINE IN 1 AUDIO
MF-42 BOARD
J602
LINE IN 2 AUDIO
(See page 140, 141.)
MA-33 BOARD
LINE 1
LINE 2
TUNER
IC901
(See page 144.)
IO-14 BOARD
J902
LINE OUT AUDIO
(See page 132, 133.)
IC201
AUDIO OUT
AUDIO IN
NORMAL AUDIO REC/PB AMP
BIAS/ERASE OSC

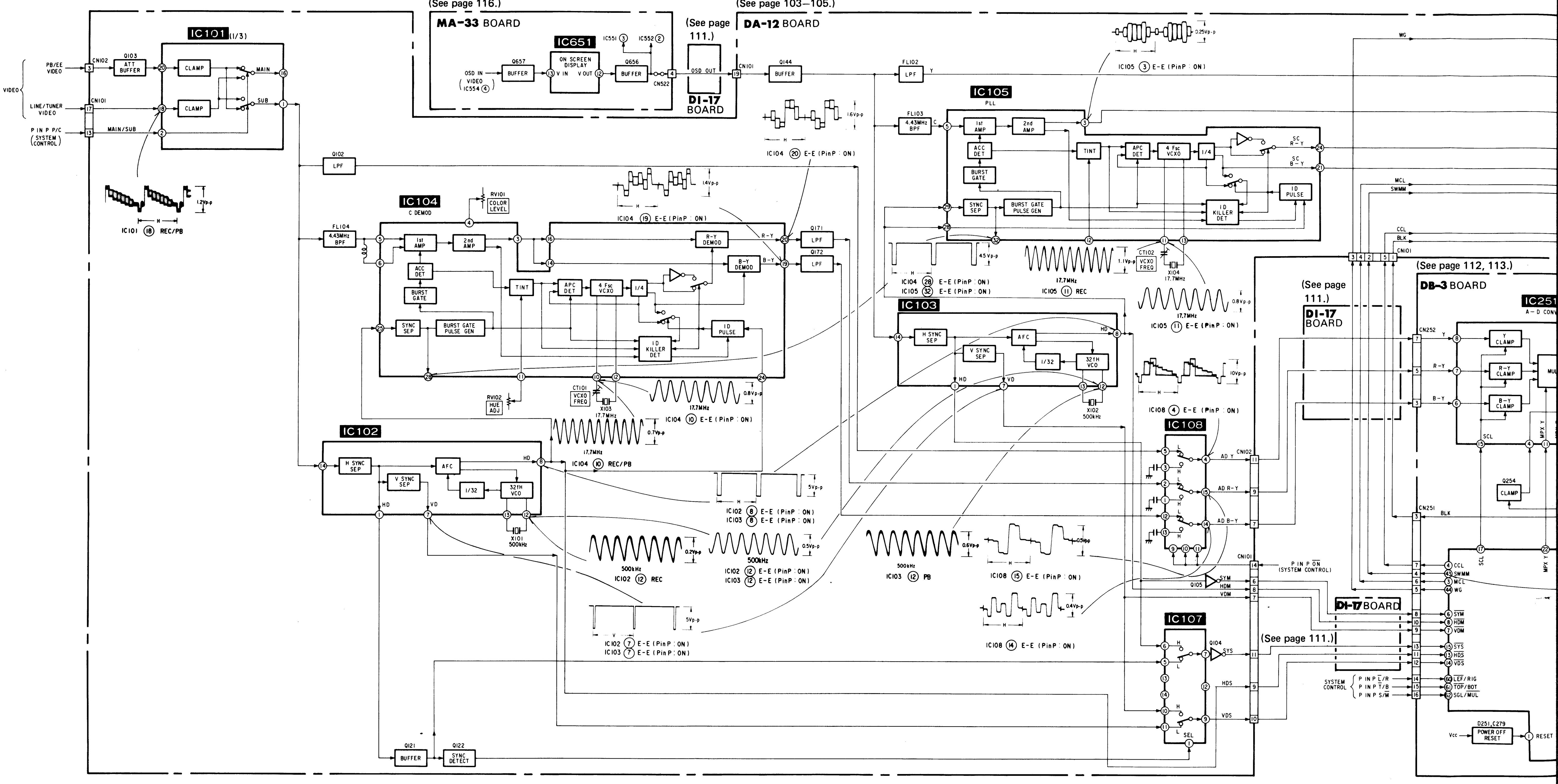

(See page 87, 88.)
RP-63 BOARD
IC801
REC Y
PB Y
MPH
MIX
IC702
IH DL (DOC)
PEC/PB AMP
PB Y
PB C
PB C
REC C
VIDEO HEAD
SP CH1
SP CH2
EP CH1
EP CH2
FE ON (SYSTEM CONTROL)
FE OSC
FLYING ERASE HEAD
IC502
SACAM DET
ACK
MA-33 BOARD
(See page 116.)
IC651
ON SCREEN DISPLAY
MAIN VIDEO
IC105
SC PLL
C
(See page 103-105.)
DA-12 BOARD
IC101 (1/2)
SELECTOR
PB/EE
LINE/TUNER
(See page 112, 113.)
DB-3 BOARD
DIGITAL MEMORY
Y
R-Y
B-Y
IC104
C DEMOD
C
Y
Y/C SEP
(See page 116–118.)
MA-33 BOARD
IC501 (1/2)
DRUM PG
DRUM FG
IC401
IC402
IC407
CTL HEAD
CTL HEAD CONTROL
PB CTL
IC503
CTL HEAD CONTROL (VISS)
VISS (INDEX)
REC CTL
CAPSTAN FG
SERVO
IC405
DRUM MOTOR DRIVE
M
DRUM MOTOR
CAPSTAN MOTOR DRIVE
M
CAPSTAN MOTOR
IC501 (1/2)
FE ON
VIDEO CONTROL SIGNALS
AUDIO CONTROL SIGNALS
DIGITAL MEMORY CONTROL SIGNALS
S CLOCK I
S OUT I
S IN I
SYSTEM CONTROL
SUPPLY END SENSOR
TAKE-UP END SENSOR
SUPPLY REEL SENSOR
TAKE-UP REEL SENSOR
CASSETTE UP/DOWN
REC PROOF
ROTARY SWITCH (CAM POSITION)
LOADING MOTOR DRIVE
M
LOADING MOTOR
IC502
SC
SI
SO
(See page 155, 156.)
PS-212, 213, DS-34 BOARD
IC720
T702
SW12V
SW9V
SW5V
UNSW 5.8V
DIGI 5V
UNREG 17V
AC 45V
AC 5.6V
POWER SUPPLY
AC IN
POWER ON
(See page 143, 144.)
MF-42 BOARD
IC601
POWER ON
SC
SI
SO
SW BLOCK
(See page 142.)
LED
KEY
KEY
IC602
SIRCS IN
SIRCS
SLV-402 ONLY
VPS DECODER
IC001
IC002
VPS CONTROL
TM-95 BOARD (See page 132.)
(See page 118.)
MA-33 BOARD
SIRCS SW
CNJ552
CONTROL S IN
CNJ553
CONTROL S OUT
IC598
SIRCS OUT
TIMER/TUNER CONTROL
BUZZER
OSC
IC599
LINCS MASTER
XMT.PAUSE (SYSTEM CONTROL)
IC504
S CLOCK I
S OUT I
S IN I
(SYSTEM CONTROL)
LINCS SLAVE
(See page 132.)
IO-14 BOARD
MASTER
SLAVE
CNJ901
CONTROL L
FLUORESCENT DISPLAY
AUDIO
VIDEO
RF MOD
MIXER
AERIAL
OUT
IN
SPLITER
RFU-867
(See page 151.)
TU-97 BOARD
(See page 151, 152.)
TU301
UHF/VHF TUNER
PULL UNIT
IF
IF301
VIF SIF
VIDEO
MPX
AFT UP/DN
TUNER CONTROL
IC301
AUDIO
IC201
AUDIO OUT
AUDIO IN
NORMAL AUDIO REC/PB AMP
AUDIO REC/PB HEAD
AUDIO ERASE HEAD
FULL ERASE HEAD
BIAS/ERASE OSC

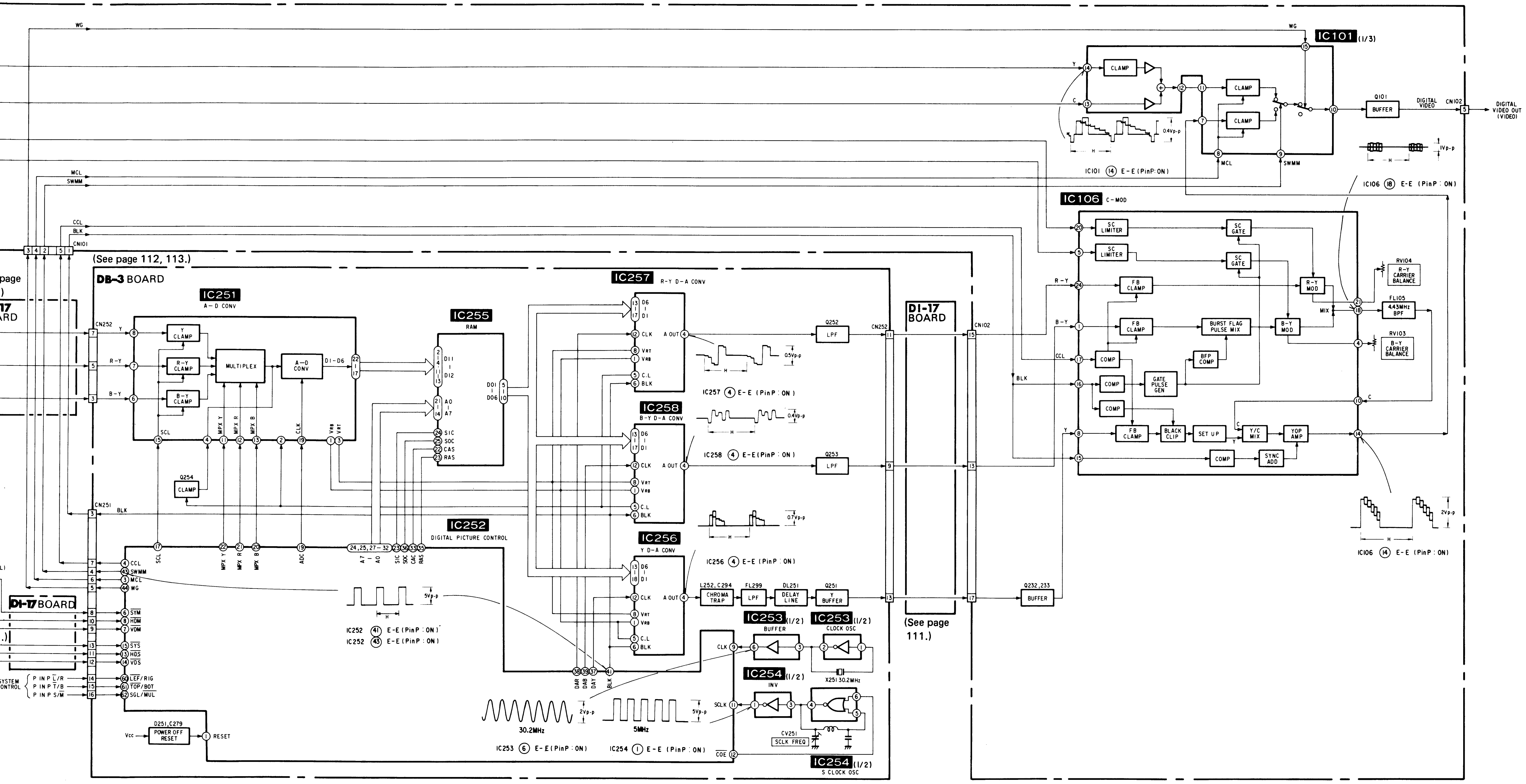
3-3. VIDEO BLOCK DIAGRM


(See page 97, 98.)
YC-55 BOARD
(See page 99.)
CD-12 BOARD
IC701
CN701
PB Y FM
HPF
LIMITER
EQ
MIX
LIMITER
FM DEMOD
LPF
CN704
Q707, 709
EQUALIZER
Q708, 712
EQ ON/OFF SW
CN706
SP
VIDEO AMP
PB
EE
Q729
MAIN DE-EMPHASIS
Q704, 723
PEAKING SW
EDIT
(CN701 ⑨)
V 0.2V/div
H 0.1μsec/div
IC701 ㉕ PB
ENV DET
DROPOUT DET
DELAY
0.9Vp-p
IC701 ㊲ PB
REC Y FM
Q721
Y-FM BUFFER
HPF & TRAP
RV710
Y-FM LEVEL
FM MOD
RV708
DEMOD GAIN
RV702
DEVIATION
RV703
CARRIER SET
MAIN PRE-EMPHASIS
RV704
DARK CLIP
RV705
WHITE CLIP
NONLINEAR DE-EMPHASIS
NONLINEAR EMPHASIS
CLAMP
LIMITER
DET
HPF
IC701 ㊵ REC/PB
REC 0.5Vp-p
PB 0.45Vp-p
IC701 ⑥ PB
IC701 ⑧ PB
⑥ 1.0Vp-p
⑧ 0.48Vp-p
VIDEO AMP
DETAIL LINEALITY
DO PULSE
ENV
DROPOUT COMP (PB ONLY)
LIMITER
DETECT
AMP
HPF
AMP
FL701
LPF
AGC
AGC DET
SYNC SEP
LPF
RV701
AGC
COMP SYNC
Q722
NOISE CANCEL SW
EDIT
(CN701 ⑨)
SHARPNESS CONT
NOISE CANCEL
Y/C MIX
HPF
NOISE LIMITER
LPF
LOGIC
IC701 ⑥ ⑧ REC
IC701 ㊺ REC/PB
⑥ ㊺ 1.1Vp-p
⑧ 0.55Vp-p
5Vp-p
IC701 ② REC/PB
SWP
SP
CN703
CCD IN
CN705
IC702
Q705, 706
CCD DRIVE
1H DELAY CCD
Q711
BUFFER
LPF
Q710
3fsc AMP
CF701
3fsc BPF
CD-12 BOARD
(See page 99.)
3fsc
CN703
RV707
CCD LEVEL
Q702
BUFFER
1Vp-p
IC801 ② REC
(See page 87, 88.)
RP-63 BOARD
IC801
VIDEO HEAD
SP CH1
SP CH2
EP CH1
EP CH2
CN801
SP
EP
COMP
MODE CONTROL LOGIC
TO EACH SWITCHES
C ROT
AMS
SYNC
SW30
SP/EP
SLOW
AMP
HPF
Q801, 802
EQUALIZER AMP
Q804
SP/EP EQ SW
SP/EP
Q803
BUFFER
RF AGC
AGC DET
REC CONTROL
Q806
REC CONTROL
CN802
PB Y FM
PB C
C ROT
AMS
COMP SYNC
SW 25
SP/EP
Q805
SP/EP SW
MIX
REC Y FM
REC C
REC P
SLOW
Q850, 851
REC 9V SW
REC 9V
SW 9V
REC
FE ON
CN803
FLYING ERASE HEAD
Q852
FE AMP
Q853
FE OSC
Q854
OSC CONT
IC801 ⑲ PB
V 0.2V/div
H 0.1μsec/div
MA-33 BOARD
SW 25
SP/EP
SYSTEM CONTROL
CN702
CN701
ACK
(CN704 ①)
Q811
PB C
LPF
REC C
Q802
SECAM KILLER
ACK
(CN704 ①)
RV801
REC C LEVEL
LPF
REC KILLER AMP
0.6Vp-p
IC801 ④ REC
SWP
(H, CH1, L, CH2)
5Vp-p
2V
IC801 ⑲ REC/PB
Q801
BUFFER
IC801
REC
PB
ACC AMP
ACC DET
MAIN CONV
FL801
4.43MHz BPF
2H COMB DRIVE
0.9Vp-p
IC801 ② PB
PB (SP)
PB (EP/LP)
321fH VCO
1/8
COUNTER
PB APC DET
REC AFC DET
PHASE SHIFT
SUB CONV
4.43MHz VXO
3fsc GEN
REC APC DET
FL802
5.06MHz BPF
CV801
VXO
X801
4.43MHz
3fsc

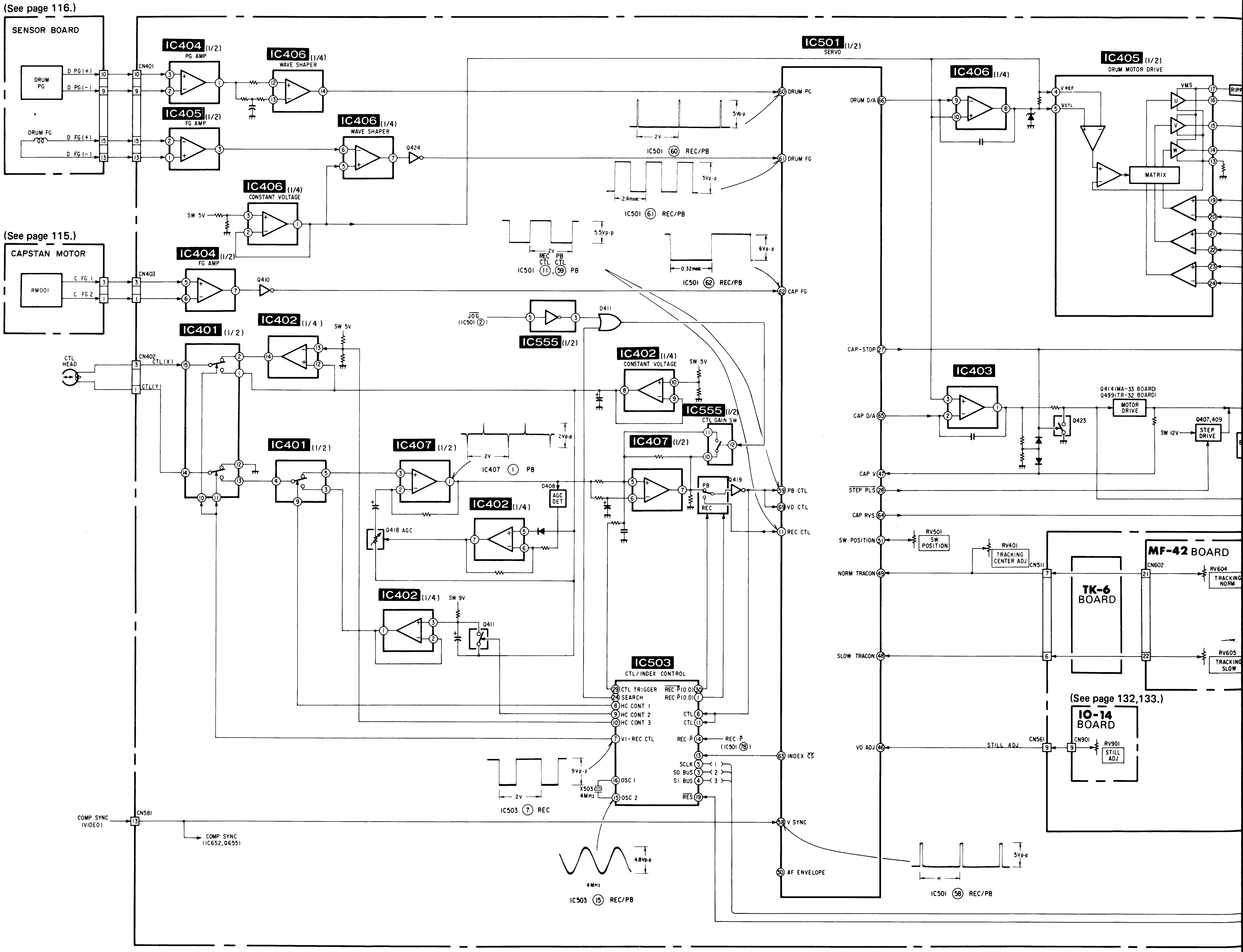

(See page 129.)
(See page 143.)
MA-33 BOARD
TK-6 BOARD
MF-42 BOARD
RV601 SHARPNESS
CN602
CN701
EDIT (CN701 ⑨)
Q722 NOISE CANCEL SW
SHARPNESS CONT
HPF
NOISE LIMITER
LPF
NOISE CANCEL
Y/C MIX
PB
EE
CLAMP
MUTE
VIDEO AMP
VIDEO OUT
2.4Vp-p
IC701 (48) REC/PB
Q VD
EDIT
PB
SYSTEM CONTROL
LOGIC
IC701 ⑥,⑧ REC
IC701 (45) REC/PB
⑥ 1.1Vp-p
⑧ 0.55Vp-p
5Vp-p
IC701 ② REC/PB
Q703 PB 5V SW
PB 5V
SW 5V
AGC
AGC DET
SYNC SEP
LPF
RV701 AGC
VIDEO
VIDEO IN
COMP SYNC
SWP
SP
SP/EP
ACK
CN702
CN703
Q702 BUFFER
RV707 CCD LEVEL
1Vp-p
IC801 ② REC
0.5Vp-p
IC701 (43) PB
IC554
Q552 BUFFER
Q567
PINP S/M
PINP P/C
Q601,568 6dB AMP
CN581
CN561
CN522
PB/EE VIDEO
OSD OUT
ON SCREEN DISPLAY
TO V LINE OUT
(See page 103–105.)
(See page 111.)
DI-17 BOARD
DA-12, DB-3 BOARD
MAIN VIDEO
P IN P SWITCH
MAIN/SUB SELECT
DIGITAL PICTURE MEMORY
SUB VIDEO
TU/EE VIDEO
IC552
Q544 BUFFER
D560
P IN P ON
P IN P S/M
SYSTEM CONTROL
IC553 INPUT SELECT
TU
LINE 1
LINE 2
LINE/TU (TIMER)
SC CONT
LINE 1/2 (TIMER)
Q557,558
IC551
PB
REC
SW 5V
PB 5V
Q565,566
TIMER SYSTEM TITLE CONTROL
CN552
CN562
CN513
CN553
CN582
MA-33 BOARD
(See page 115-118, 130, 131.)
(See page 133.)
CN901
J902(1/4) LINE OUT VIDEO
IO-14 BOARD
RFU VIDEO OUT (TUNER)
CNJ902 EURO CONNECTOR
J902(1/4) LINE IN 1 VIDEO
TU VIDEO IN (TUNER)
TK-6 BOARD
MF-42 BOARD
CN609
J602(1/2) LINE IN 2 VIDEO
(See page 129.)
(See page 143, 144.)
(See page 99.)
CD-12 BOARD
CN704
CN705
CN706
IC802 SECAM DET
COMP SYNC
DET CHROMA
Q806 DELAY
DEMOD
FF
SECAM DET
1.5Vp-p
4.4Vp-p
IC802 ⑤ REC/PB
IC802 ⑦ REC/PB
MAIN CONV
FL801 4.43MHz BPF
2H COMB DRIVE
Q807,808 SECAM PAL
Q805 BUFFER
DL701 2H COMB FILTER
PB KILLER AMP
0.2Vp-p
IC801 (30) REC
IC801 (21),(25) PB
(21) 0.48Vp-p
(25) 1.8Vp-p
PB (SP)
PB (EP/LP)
0.9Vp-p
IC801 ② PB
321fH VCO
1/8
COUNTER
PB APC DET
REC AFC DET
ID DET
COLOR KILLER DET
PB DISCRI
COMP SYNC
PHASE SHIFT
SUB CONV
4.43MHz VXO
REC APC DET
3fsc GEN
0.55Vp-p
4.43MHz
IC801 (14) REC
FL802 5.06MHz BPF
CV801 VXO
X801 4.43MHz
3fsc
AFC/APC TIME CONSTANT
Q804 REC/PB SWITCH
PB 5V (Q703)
fsc (AUDIO)

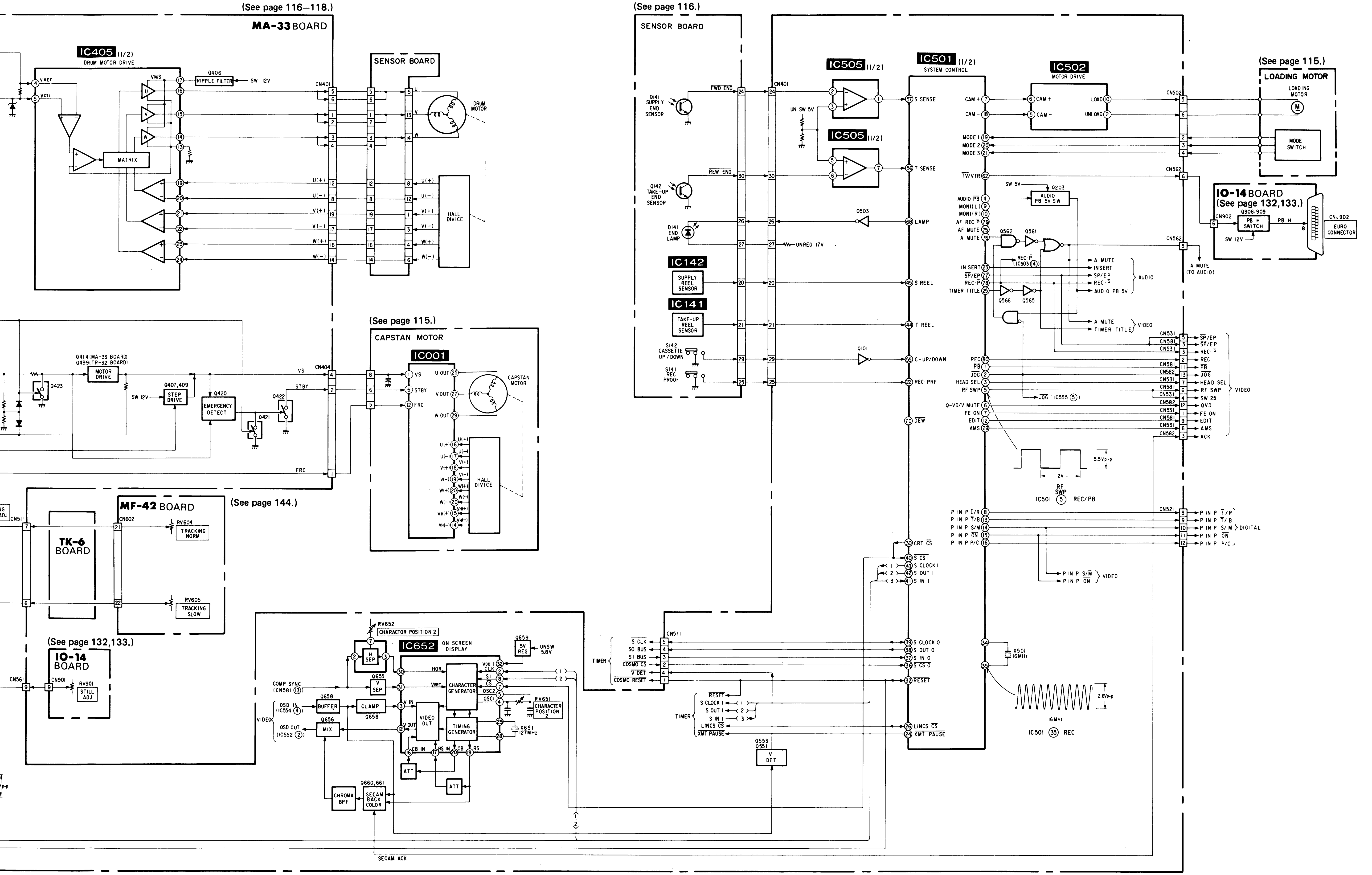
3-4. DIGITAL BLOCK DIAGRAM


(See page 116.)
MA-33 BOARD
(See page 111.)
DI-17 BOARD
(See page 103—105.)
DA-12 BOARD
(See page 112, 113.)
DB-3 BOARD
(See page 111.)
DI-17 BOARD
(See page 111.)
DI-17 BOARD
IC101 (1/3)
IC651
ON SCREEN DISPLAY
IC104
C DEMOD
IC102
IC105
PLL
IC103
IC108
IC107
IC251
A-D CONV
VIDEO
PB/EE VIDEO
LINE/TUNER VIDEO
P IN P P/C (SYSTEM CONTROL)
MAIN/SUB
CN102
CN101
Q103 ATT BUFFER
CLAMP
MAIN
SUB
OSD IN
(VIDEO IC554 ④)
Q657 BUFFER
Q656 BUFFER
V IN
V OUT
IC551 ③
IC552 ②
CN522
OSD OUT
Q144 BUFFER
FL102 LPF
Y
FL103 4.43MHz BPF
C
1st AMP
2nd AMP
ACC DET
BURST GATE
SYNC SEP
BURST GATE PULSE GEN
TINT
APC DET
4 Fsc VCXO
1/4
ID KILLER DET
ID PULSE
SC R-Y
SC B-Y
CT102 VCXO FREQ
X104 17.7MHz
Q102 LPF
FL104 4.43MHz BPF
RV101 COLOR LEVEL
R-Y DEMOD
B-Y DEMOD
R-Y
B-Y
Q171 LPF
Q172 LPF
CT101 VCXO FREQ
X103 17.7MHz
RV102 HUE ADJ
H SYNC SEP
V SYNC SEP
AFC
1/32
321fH VCO
HD
VD
X101 500kHz
X102 500kHz
Q121 BUFFER
Q122 SYNC DETECT
IC101 ⑱ REC/PB
1.2Vp-p
IC104 ⑲ E-E (PinP : ON)
1.4Vp-p
IC104 ⑳ E-E (PinP : ON)
1.6Vp-p
IC105 ③ E-E (PinP : ON)
0.25Vp-p
IC104 ㉘ E-E (PinP : ON)
IC105 ㉜ E-E (PinP : ON)
4.5Vp-p
17.7MHz
IC105 ⑪ REC
1.1Vp-p
IC105 ⑪ E-E (PinP : ON)
0.8Vp-p
17.7MHz
IC104 ⑩ E-E (PinP : ON)
0.8Vp-p
IC104 ⑩ REC/PB
0.7Vp-p
IC102 ⑧ E-E (PinP : ON)
IC103 ⑧ E-E (PinP : ON)
5Vp-p
500kHz
IC102 ⑫ REC
0.2Vp-p
IC102 ⑫ E-E (PinP : ON)
IC103 ⑫ E-E (PinP : ON)
0.5Vp-p
IC103 ⑫ PB
0.6Vp-p
IC108 ⑮ E-E (PinP : ON)
0.5Vp-p
IC108 ④ E-E (PinP : ON)
1.0Vp-p
IC108 ⑭ E-E (PinP : ON)
0.4Vp-p
IC102 ⑦ E-E (PinP : ON)
IC103 ⑦ E-E (PinP : ON)
5Vp-p
H
V
L
AD Y
AD R-Y
AD B-Y
P IN P ON (SYSTEM CONTROL)
Q105
SYM
HDM
VDM
Q104
SYS
HDS
VDS
SEL
WG
MCL
SWMM
CCL
BLK
CN252
CN251
Y CLAMP
R-Y CLAMP
B-Y CLAMP
Q254 CLAMP
SCL
MPX Y
SYSTEM CONTROL
P IN P L/R
P IN P T/B
P IN P S/M
LEF/RIG
TOP/BOT
SGL/MUL
D251, C279 POWER OFF RESET
Vcc
RESET


WG
MCL
SWMM
CCL
BLK
CN101
(See page 112, 113.)
page
17
ARD
DB-3 BOARD
IC251
A-D CONV
CN252
Y
R-Y
B-Y
Y CLAMP
R-Y CLAMP
B-Y CLAMP
MULTIPLEX
A-D CONV
D1-D6
SCL
MPX Y
MPX R
MPX B
CLK
VRB
VRT
Q254
CLAMP
IC255
RAM
DI1
DI2
A0
A7
DO1
DO6
SIC
SOC
CAS
RAS
IC257
R-Y D-A CONV
D6
D1
CLK
VRT
VRB
C.L
BLK
A OUT
Q252
LPF
0.5Vp-p
H
IC257 ④ E-E (PinP : ON)
IC258
B-Y D-A CONV
0.4Vp-p
IC258 ④ E-E (PinP : ON)
Q253
LPF
0.7Vp-p
IC256
Y D-A CONV
IC256 ④ E-E (PinP : ON)
L252, C294
CHROMA TRAP
FL299
LPF
DL251
DELAY LINE
Q251
Y BUFFER
IC252
DIGITAL PICTURE CONTROL
CN251
BLK
CCL
SWMM
MCL
WG
24, 25, 27-32
A7 - A0
SIC
SOC
CAC
RAS
ADC
DI-17 BOARD
SYM
HDM
VDM
SYS
HDS
VDS
SYSTEM CONTROL
P IN P L/R
P IN P T/B
P IN P S/M
LEF/RIG
TOP/BOT
SGL/MUL
5Vp-p
IC252 ㊶ E-E (PinP : ON)
IC252 ㊸ E-E (PinP : ON)
DAR
DAB
DAY
BLK
D251, C279
Vcc
POWER OFF RESET
RESET
IC253 (1/2)
BUFFER
IC253 (1/2)
CLOCK OSC
X251 30.2MHz
IC254 (1/2)
INV
CV251
SCLK FREQ
IC254 (1/2)
S CLOCK OSC
CLK
SCLK
COE
2Vp-p
30.2MHz
5Vp-p
5MHz
IC253 ⑥ E-E (PinP : ON)
IC254 ① E-E (PinP : ON)
CN252
DI-17 BOARD
(See page 111.)
CN102
IC101 (1/3)
CLAMP
CLAMP
CLAMP
0.4Vp-p
IC101 ⑭ E-E (PinP : ON)
Q101
BUFFER
DIGITAL VIDEO
CN102
DIGITAL VIDEO OUT (VIDEO)
1Vp-p
IC106 ⑱ E-E (PinP : ON)
IC106 C-MOD
SC LIMITER
SC LIMITER
SC GATE
SC GATE
FB CLAMP
FB CLAMP
BURST FLAG PULSE MIX
R-Y MOD
B-Y MOD
BFP COMP
COMP
COMP
COMP
GATE PULSE GEN
FB CLAMP
BLACK CLIP
SET UP
Y/C MIX
YOP AMP
COMP
SYNC ADD
MIX
C
RV104
R-Y CARRIER BALANCE
FL105
4.43MHz BPF
RV103
B-Y CARRIER BALANCE
Q232, 233
BUFFER
2Vp-p
IC106 ⑭ E-E (PinP : ON)

3-5. SERVO, SYSTEM CONTROL BLOCK DIAGRAM


(See page 116.)
SENSOR BOARD
DRUM PG
D PG (+)
D PG (−)
DRUM FG
D FG (+)
D FG (−)
CN401
IC404 (1/2) PG AMP
IC405 (1/2) FG AMP
IC406 (1/4) WAVE SHAPER
IC406 (1/4) CONSTANT VOLTAGE
SW 5V
Q424
(See page 115.)
CAPSTAN MOTOR
RM001
C FG 1
C FG 2
CN403
IC404 (1/2) FG AMP
Q410
CTL HEAD
CN402
CTL (X)
CTL (Y)
IC401 (1/2)
IC402 (1/4)
IC401 (1/2)
IC407 (1/2)
IC407 ① PB
2Vp-p
2V
D408
AGC DET
IC402 (1/4)
Q418 AGC
IC402 (1/4)
SW 9V
Q411
JOG (IC501 ②)
IC555 (1/2)
D411
IC402 (1/4) CONSTANT VOLTAGE
IC555 (1/2) CTL GAIN SW
IC407 (1/2)
Q419
PB
REC
IC503 CTL/INDEX CONTROL
CTL TRIGGER
SEARCH
HC CONT 1
HC CONT 2
HC CONT 3
VI-REC CTL
OSC 1
OSC 2
X503 4MHz
REC-P (O.D)
CTL
REC-P
REC-P (IC501 78)
SCLK
SO BUS
SI BUS
RES
9Vp-p
IC503 ⑦ REC
4.8Vp-p
4MHz
IC503 ⑮ REC/PB
COMP SYNC (VIDEO)
CN581
COMP SYNC (IC652, Q655)
5Vp-p
IC501 ⑳ REC/PB
2.4msec
IC501 ㊶ REC/PB
5.5Vp-p
REC PB CTL CTL
IC501 ⑪, ㊾ PB
6Vp-p
0.32msec
IC501 ㊷ REC/PB
IC501 (1/2) SERVO
DRUM PG
DRUM FG
CAP FG
PB CTL
VD CTL
REC CTL
INDEX CS
V SYNC
AF ENVELOPE
DRUM D/A
CAP-STOP
CAP D/A
CAP V
STEP PLS
CAP RVS
SW POSITION
NORM TRACON
SLOW TRACON
VD ADJ
H
IC501 ㊽ REC/PB
IC406 (1/4)
IC405 (1/2) DRUM MOTOR DRIVE
V REF
V CTL
VMS
U
V
W
MATRIX
IC403
Q414 (MA-33 BOARD)
Q499 (TR-32 BOARD)
MOTOR DRIVE
Q423
SW 12V
Q407,409
STEP DRIVE
RV501 SW POSITION
RV401 TRACKING CENTER ADJ
CN511
TK-6 BOARD
MF-42 BOARD
CN602
RV604 TRACKING NORM
RV605 TRACKING SLOW
(See page 132,133.)
IO-14 BOARD
CN561
CN901
STILL ADJ
RV901 STILL ADJ


(See page 116–118.)
MA-33 BOARD
IC405 (1/2)
DRUM MOTOR DRIVE
VMS
V REF
VCTL
MATRIX
Q406
RIPPLE FILTER
SW 12V
CN401
SENSOR BOARD
DRUM MOTOR
HALL DIVICE
U(+)
U(−)
V(+)
V(−)
W(+)
W(−)
Q414(MA-33 BOARD)
Q499(TR-32 BOARD)
MOTOR DRIVE
Q423
Q407,409
STEP DRIVE
Q420
EMERGENCY DETECT
Q421
Q422
VS
STBY
FRC
CN404
(See page 115.)
CAPSTAN MOTOR
IC001
U OUT
V OUT
W OUT
CAPSTAN MOTOR
HALL DIVICE
MF-42 BOARD
(See page 144.)
CN602
RV604
TRACKING NORM
RV605
TRACKING SLOW
TK-6 BOARD
CN511
(See page 132,133.)
IO-14 BOARD
CN561
CN901
RV901
STILL ADJ
RV652
CHARACTOR POSITION 2
IC652
ON SCREEN DISPLAY
H SEP
V SEP
Q655
Q659
5V REG
UNSW 5.8V
COMP SYNC (CN581 ⑬)
Q658
BUFFER
CLAMP
OSD IN (IC554 ④)
OSD OUT (IC552 ②)
VIDEO
Q656
MIX
VIDEO OUT
CHARACTER GENERATOR
TIMING GENERATOR
RV651
CHARACTER POSITION 2
X651 12.7MHz
ATT
CHROMA BPF
Q660,661
SECAM BACK COLOR
SECAM ACK
(See page 116.)
SENSOR BOARD
Q141 SUPPLY END SENSOR
Q142 TAKE-UP END SENSOR
D141 END LAMP
FWD END
REW END
UNREG 17V
IC142
SUPPLY REEL SENSOR
IC141
TAKE-UP REEL SENSOR
S142 CASSETTE UP/DOWN
S141 REC PROOF
IC505 (1/2)
IC501 (1/2)
SYSTEM CONTROL
IC502
MOTOR DRIVE
UN SW 5V
S SENSE
T SENSE
LAMP
Q503
S REEL
T REEL
Q101
C-UP/DOWN
REC·PRF
DEW
CAM+
CAM−
LOAD
UNLOAD
MODE 1
MODE 2
MODE 3
TV/VTR
SW 5V
Q203
AUDIO PB 5V SW
AUDIO PB
MONI(L)
MONI(R)
AF REC P
AF MUTE
A MUTE
Q562
Q561
REC·P (IC503 ⑭)
INSERT
SP/EP
REC·P
TIMER TITLE
Q566
Q565
A MUTE
INSERT
SP/EP
REC·P
AUDIO PB 5V
AUDIO
A MUTE
TIMER TITLE
VIDEO
REC
PB
JOG
HEAD SEL
RF SWP
Q-VD/V MUTE
FE ON
EDIT
AMS
JOG (IC555 ⑤)
CN531
CN581
CN582
SP/EP
REC·P
QVD
SW 25
ACK
5.5Vp-p
2V
RF SWP
IC501 ⑤ REC/PB
P IN P L/R
P IN P T/B
P IN P S/M
P IN P ON
P IN P P/C
CN521
DIGITAL
P IN P S/M
P IN P ON
VIDEO
CRT CS
S CS1
S CLOCK1
S OUT 1
S IN 1
TIMER
S CLK
SO BUS
SI BUS
COSMO CS
V DET
COSMO RESET
S CLOCK 0
S OUT 0
S IN 0
S CS 0
RESET
S CLOCK 1
S OUT 1
S IN 1
LINCS CS
XMT PAUSE
Q553
Q551
V DET
X501 16MHz
2.6Vp-p
16MHz
IC501 ㉟ REC
(See page 115.)
LOADING MOTOR
MODE SWITCH
CN502
CN562
A MUTE (TO AUDIO)
IO-14 BOARD
(See page 132,133.)
CN902
Q908,909
PB H SWITCH
PB H
SW 12V
CNJ902
EURO CONNECTOR

3-6. SYSTEM CONTROL — VIDEO BLOCK INTERFACE

SIGNAL	Pin. No.	I/O	STOP/ FF/REW	TAPE LOADING	TAPE UNLOADING	PB	PB•PAUSE	SLOW	X2	CUE	REVIEW	REC	REC•PAUSE	INSERT	INSERT•PAUSE
$\overline{\text{PB}}$	MA-33BOARD IC501 ①Pin	O	H	H	H	L	L	L	L	L	L	H	H	H	H
$\overline{\text{JOG}}$	MA-33BOARD IC501 ②Pin	O	H	H	H	H	L	L	L	L	L	H	H	H	H
HEAD SEL	MA-33BOARD IC501 ③Pin	O	L	L	L	L	H	*1	L	L	L	L	L	L	L
RF SW P (SW25)	MA-33BOARD IC501 ⑤Pin	O	H/L	*2	*2	*2	*2	*2	*2	*2	*2	*2	*2	*2	*2
Q VD/V MUTE	MA-33BOARD IC501 ⑥Pin	O	L	L	L	*3	*4	*4	*4	*4	*4	L	L	L	L
FE ON	MA-33BOARD IC501 ⑦Pin	O	L	L	L	L	L	L	L	L	L	H	L	H	H
EDIT	MA-33BOARD IC501 ⑫Pin	O	L	L	L	*5	*5	*5	*5	*5	*5	*5	L	*5	L
AMS	MA-33BOARD IC501 ㉙Pin	O	L	L	L	L	L	L	L	H	H	L	L	L	L
$\overline{\text{SP}}$/EP	MA-33BOARD IC501 (77)Pin	O	L	L	L	L	L	L	L	L	L	L	L	L	L
REC•$\overline{\text{P}}$	MA-33BOARD IC501 (78)Pin	O	L	L	L	L	L	L	L	L	L	H	L	H	L
REC	MA-33BOARD IC501 (80)Pin	O	L	L	L	L	L	L	L	L	L	H	H	H	H
V SYNC	MA-33BOARD IC501 (58)Pin	I	*6	*6	*6	*6	*6	*6	*6	*6	*6	*6	*6	*6	*6
TIMER TITLE*7	MA-33BOARD IC501 ㉕Pin	O	L	L	L	L	L	L	L	L	L	L	L	L	L

*1. "H" when the tape stops, and "L" when it runs (for approx. 40 msec).
*2. Synchronized with drum rotation. 25 Hz, 50 % duty pulse.
*3. Normally "L". "H" when CTL signal is not played back.
*4. V-cycle "H" pulse
*5. Normally "L". "H" in SYNCHRO EDIT mode.
*6. Composite sync. signal (positive polarity).
*7. "H" when recording a timer title(3 seconds) at timer REC.

3-7. SYSTEM CONTROL — DIGITAL PICTURE BLOCK INTERFACE

SIGNAL	Pin No.	I/O	I/O LEVEL
$\overline{\text{PB}}$	MA-33BOARD IC501 ①Pin	O	"L" for PB mode (speed-change PB mode included).
PIN P $\overline{\text{L}}$/R	MA-33BOARD IC501 ⑧Pin	O	"H" when the child screen is placed to the right of a parent screen in the P IN P mode, and "L" when placed to its left.
PIN P $\overline{\text{T}}$/B	MA-33BOARD IC501 ⑬Pin	O	"L" when the child screen is placed above the parent one in the P IN P mode, and "H" when placed below it.
PIN P S/$\overline{\text{M}}$	MA-33BOARD IC501 ⑭Pin	O	"H" for the P IN P mode (one child screen) and "L" for the edit monitor mode (two child screens).
PIN P $\overline{\text{ON}}$	MA-33BOARD IC501 ⑮Pin	O	Normally "H". "L" for the P IN P or edit monitor mode.
PIN P P/C	MA-33BOARD IC501 ⑯Pin	O	Signal to replace parent and child screens with each other in the P IN P mode. "H" when a playback/E-E output picture is on the parent screen, and a tuner/line input picture is on the child screen.

3-8. SYSTEM CONTROL — SERVO PERIPHERAL CIRCUIT INTERFACE

SIGNAL	Pin No.	I/O	STOP	FF	REW	TAPE LOADING	TAPE UNLOADING	PB	PB• PAUSE	SLOW	X2	CUE	REVIEW	REC	REC• PAUSE	INSERT	INSERT •PAUSE
REC CTL*1	MA-33BOARD IC501 ⑪Pin	O															
CAP STOP	MA-33BOARD IC501 ㉗Pin	O	H	L	L	L	L	L	H	H	L	L	L	L	H	L	H
$\overline{\text{STEP PLS}}$	MA-33BOARD IC501 ㉘Pin	O	H	H	H	H	H	H	H	*2	H	H	H	H	H	H	H
CAP V*3	MA-33BOARD IC501 ㊼Pin	I															
SLOW TRACON*4	MA-33BOARD IC501 ㊽Pin	I															
NORM TRACON*5	MA-33BOARD IC501 ㊾Pin	I															
SW POSITION*6	MA-33BOARD IC501 (51)Pin	I															
PB CTL	MA-33BOARD IC501 (59)	I	H	*8	*8			*1	H	*2	*8	*8	*8	*1	H	*1	H
VD CTL	MA-33BOARD IC501 (69)	I	H	*8	*8			*1	H	*2	*8	*8	*8	*1	H	*1	H
DRUM PG	MA-33BOARD IC501 (60)Pin	I	L	L	L	*7	*7	*9	*9	*9	*9	*9	*9	*9	*9	*9	*9
DRUM FG	MA-33BOARD IC501 (61)Pin	I	L	L	L	*7	*7	*10	*10	*10	*10	*10	*10	*10	*10	*10	*10
CAP FG	MA-33BOARD IC501 (62)Pin	I	H/L	*8	*8	*7	*7	*8	H/L	*11	*8	*8	*8	*8	H/L	*8	H/L
INDEX $\overline{\text{CS}}$	MA-33BOARD IC501 (63)Pin	O	*12														
CAP RVS	MA-33BOARD IC501 (64)Pin	O	H	H	L	H	L	H	H	*2	H	H	L	H	H	H	H
CAP DA*16	MA-33BOARD IC501 (65)Pin	O	*13	L	L	*13	*13	*14	*13	*13	*14	*14	*14	*14	*13	*14	*13
DRUM DA*16	MA-33BOARD IC501 (66)Pin	O						*15	*15	*15	*15	*15	*15	*15	*15	*15	*15
REC • $\overline{\text{P}}$	MA-33BOARD IC501 (78)Pin	O	L	L	L	L	L	L	L	L	L	L	L	H	L	H	L

*1. 25 Hz pulse
*2. "L" pulse when the tape runs.
*3. Input terminal for capstan constant-voltage drive.
Used in the FF/REW mode and for cassette loading/unloading.
*4. Input terminal for slow tracking adjustment
*5. Input terminal for normal tracking adjustment
*6. Input terminal for switching position adjustment
*7. Indefinite cycle pulse
*8. Cycle pulse proportional to a tape speed
*9. 25 Hz "H" pulse
*10. 300 Hz pulse
*11. Tape run time pulse
*12. V-cycle "L" pulse
*13. "H" or "L" pulse in a cycle of approx. 2 msec.
*14. "H" or "L" pulse in a cycle of approx. 1.5 msec.
*15. "H" or "L" pulse in a cycle of approx. 3 msec.
*16. 3-value output of "H", "L" and HI-Z(2.5V)

3-9. SYSTEM CONTROL — MECHANISM BLOCK INTERFACE

SIGNAL	Pin No.	I/O	EJECTED	CASSETTE LOADING	CASSETTE UNLOADING	STOP	FF	REW	TAPE LOADING	TAPE UNLOADING	PB	PB• PAUSE	SLOW	X2	CUE	REVIEW	REC	REC• PAUSE	INSERT	INSERT •PAUSE
CAM+*1	MA-33BOARD IC501 ⑰Pin	O	L	L	L	L	L	L	H	L	L	L	L	L	L	L	L	L	L	L
CAM−*1	MA-33BOARD IC501 ⑱Pin	O	L	L	L	L	L	L	L	H	L	L	L	L	L	L	L	L	L	L
MODE 1	MA-33BOARD IC501 ⑲Pin	I	L	L	L	L	L	L	*2	*2	H	H	H	H	H	H	H	H	H	H
MODE 2	MA-33BOARD IC501 ⑳Pin	I	L	L	L	L	H	H	*2	*2	L	H	H	L	L	L	L	H	L	H
MODE 3	MA-33BOARD IC501 ㉑Pin	I	L	L	L	H	L	L	*2	*2	H	L	L	H	H	L	H	L	H	L
REC PRF	MA-33BOARD IC501 ㉒Pin	I	L	L	L	*3	*3	*3	*3	*3	*3	*3	*3	*3	*3	*3	H	H	H	H
T REEL	MA-33BOARD IC501 ㊹Pin	I	H/L	H/L	H/L	H/L	*4	*4			*4	H/L	*4	*4	*4	*4	*4	H/L	*4	H/L
S REEL	MA-33BOARD IC501 ㊺Pin	I	H/L	H/L	H/L	H/L	*4	*4			*4	H/L	*4	*4	*4	*4	*4	H/L	*4	H/L
LAMP	MA-33BOARD IC501 (68)Pin	O	*5	*5	*5	*5	*5	*5	*5	*5	*5	*5	*5	*5	*5	*5	*5	*5	*5	*5
$\overline{\text{DEW}}$	MA-33BOARD IC501 (70)Pin	I	*6	*6	*6	*6	*6	*6	*6	*6	*6	*6	*6	*6	*6	*6	*6	*6	*6	*6
CAP V	MA-33BOARD IC501 ㊼Pin	O	*7	*7	*7	*7	*7	*7	*7	*7	*7	*7	*7	*7	*7	*7	*7	*7	*7	*7
CAP STOP	MA-33BOARD IC501 ㉗Pin	O	H	L	L	H	L	L	L	L	L	H	H	L	L	L	L	H	L	H
CAP FWD	MA-33BOARD IC501 (64)Pin	O	H	H	L	H	H	L	H	L	H	H	*8	H	H	L	H	H	H	H
CAP DA*12	MA-33BOARD IC501 (65)Pin	O	*10	*9	*9	*9	L	L	*9	*9	*10	*9	*9	*10	*10	*10	*10	*9	*10	*9
C UP/DOWN	MA-33BOARD IC501 (55)Pin	I	H	L	L	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H
T SENS	MA-33BOARD IC501 (56)Pin	I	*5	*5	*5	L	*11	*11	*11	*11	*11	L	*11	*11	*11	*11	*11	L	*11	L
S SENS	MA-33BOARD IC501 (57)Pin	I	*5	*5	*5	L	*11	*11	*11	*11	*11	L	*11	*11	*11	*11	*11	L	*11	L

*1. "H" when progressing to the MECHA mode.
*2. Pulse
*3. "L" when a cassette erasure preventive finger is bent, and "H" when not bent.
*4. Cycle pulse proportional to a reel speed
*5. "H" pulse in a cycle of approx. 2 msec.
*6. Normally "H"
*7. Input terminal for capstant constant-voltage drive.
Used in the FF/REW mode and for cassette loading/unloading.
*8. "L" pulse when the tape runs.
*9. "H" or "L" pulse in a cycle of approx. 2 msec.
*10. "H" or "L" pulse in a cycle of approx. 1.5 msec.
*11. Normally "L". "H" pulse in a cycle of 2 msec. when tape top or tape end is detected.
*12. 3-Value output of "H", "L" and HI-Z (2.5V)

3-10. SYSTEM CONTROL — SYSTEM CONTROL PERIPHERAL CIRCUIT INTERFACE

SIGNAL	Pin No.	I/O	I/O LEVEL
$\overline{\text{XMT PAUSE}}$	MA-33BOARD IC501 ㉔Pin	O	Normally "H". "L" pulse is generated for about 200 msec. every time the SYNCHRO EDIT button is pressed in the SYNCHRO EDIT mode.
LINCS $\overline{\text{CS}}$	MA-33BOARD IC501 ㉖Pin	O	Chip select signal to the LINCS IC(IC504). V-cycle "L" pulse.
CRT $\overline{\text{CS}}$	MA-33BOARD IC501 ㉚Pin	O	Chip select signal to the CRT IC(IC651). V-cycle "L" pulse.
$\overline{\text{RESET}}$	MA-33BOARD IC501 ㉜Pin	I	Normally "H". Set to "L" when a power failure is delected or power is restored.
$\overline{\text{S CS}}$ 0	MA-33BOARD IC501 ㊱Pin	I	Chip select signal from the timer microcomputer(MF-42 board IC601). V-cycle "L" pulse.
S IN 0	MA-33BOARD IC501 ㊲Pin	I	Serial communication data from the timer microcomputer. V-cycle "L" pulse.
S OUT 0	MA-33BOARD IC501 ㊳Pin	O	Serial communication data to the timer microcomputer. V-cycle "L" pulse.
S CLK 0	MA-33BOARD IC501 ㊴Pin	I/O	Serial communication clock to/from the timer microcomputer. V-cycle "L" pulse.
$\overline{\text{S CS}}$ 1	MA-33BOARD IC501 ㊵Pin	I	Chip select signal to the CRT IC. V-cycle "L" pulse.
S IN 1	MA-33BOARD IC501 ㊶	I	Serial communication data from the INDEX IC(IC503), LINCS IC(IC504) and CRT IC(IC651). V-cycle "L" pulse.
S OUT 1	MA-33BOARD IC501 ㊷Pin	O	Serial communication data to the INDEX IC, LINCS IC and CRT IC. V-cycle "L" pulse.
S CLK 1	MA-33BOARD IC501 ㊸Pin	I/O	Serial communication clock to/from the INDEX IC, LINCS IC and CRT IC. V-cycle "L" pulse.
VD ADJ	MA-33BOARD IC501 ㊻Pin	I	Input terminal for still picture adjustment(IO-14 board, RV901).
INDEX $\overline{\text{CS}}$	MA-33BOARD IC501 (63)Pin	O	Chip select signal to the INDEX IC(IC503). V-cycle "L" pulse.

3-11. SYSTEM CONTROL — AUDIO BLOCK INTERFACE

SIGNAL	Pin No.	I/O	STOP/ FF/REW	TAPE LOADING	TAPE UNLOADING	PB	PB• PAUSE	SLOW	X2	CUE	REVIEW	REC	REC• PAUSE	INSERT	INSERT •PAUSE
$\overline{\text{AUDIO PB}}$	MA-33BOARD IC501 ④Pin	O	H	H	H	L	L	L	L	L	L	H	H	H	H
INSERT	MA-33BOARD IC501 ㉓Pin	O	L	L	L	L	L	L	L	L	L	L	L	H	H
TIMER TITLE*2	MA-33BOARD IC501 ㉕Pin	O													
A MUTE	MA-33BOARD IC501 (76)Pin	O	L	L	L	*4	H	H	H	H	H	L	L	L	L
$\overline{\text{SP}}$/EP	MA-33BOARD IC501 (77)Pin	O	L	L	L	L	L	L	L	L	L	L	L	L	L
REC • $\overline{\text{P}}$	MA-33BOARD IC501 (78)Pin	O	L	L	L	L	L	L	L	L	L	H	L	H	L

*1. "H" when recording a timer title (for 3 seconds) at timer REC start time.
*2. "H" when no CTL signal is played back.
*3. "L" when the power is turned on/off.
*4. "H" when no CTL signal is played back.

3-12. DIGITAL PICTURE — DIGITAL PICTURE PERIPHERAL CIRCUIT INTERFACE

SIGNAL	Pin No.	I/O	I/O LEVEL
$\overline{RESET}$	DB-3BOARD IC252 ①Pin	I	Reset signal. Normally "H". "L" for an instant upon power-on, etc.
MCL	DB-3BOARD IC252 ③Pin	O	Clamp pulse synchronized with a video signal for the parent screen. H-cycle "H" pulse.
CCL	DB-3BOARD IC252 ④Pin	O	Reversed signal of MCL. H-cycle "L" pulse
$\overline{SYM}$	DB-3BOARD IC252 ⑤Pin	I	Composite sync. signal synchronously seperated from the video signal for the parent screen. H-cycle "L" pulse.
$\overline{VDM}$	DB-3BOARD IC252 ⑦Pin	I	Vertical sync. signal synchonously separated from the video signal for the parent screen. V-cycle "L" pulse.
$\overline{HDM}$	DB-3BOARD IC252 ⑧Pin	I	Horizontal sync. signal synchronously separated from the video signal for the parent screen. H-cycle "L" pulse.
CLK	DB-3BOARD IC252 ⑨Pin	I	IC252 operating clock, approx. 30 MHz.
SCLK	DB-3BOARD IC252 ⑪Pin	I	Memory write clock for the video signal for the child screen, approx. 5 MHz.
$\overline{COE}$	DB-3BOARD IC252 ⑫Pin	O	Clock to synchronize the memory write clock with the video signal for the child screen. H-cycle "H" pulse.
$\overline{HDS}$	DB-3BOARD IC252 ⑬Pin	I	Horizontal sync. signal synchronously separated from the video signal for the child screen. H-cycle "H" pulse.
$\overline{VDS}$	DB-3BOARD IC252 ⑭Pin	I	Vertical sync. signal synchronously separated from the video signal for the child screen. V-cycle "L" pulse.
$\overline{SYS}$	DB-3BOARD IC252 ⑮Pin	I	Composite sync. signal synchronously separated from the video signal for the child screen. H-cycle "L" pulse.
SCL	DB-3BOARD IC252 ⑰Pin	O	Clamp pulse for the A-D converter (synchronized with the video signal for the child screen). H-cycle "H" pulse.
ADC	DB-3BOARD IC252 ⑲Pin	O	Conversion clock for the A-D converter. Approx. 0.2 μsec cycle pulse. Generated from SCLK.
MPX B	DB-3BOARD IC252 ⑳Pin	O	Input select signal for the A-D converter. "H" when B-Y signal is selected. Approx. 0.8 μsec cycle pulse. Generated from SCLK.
MPX R	DB-3BOARD IC252 ㉑Pin	O	Input select signal for the A-D converter. "H" when R-Y signal is selected. Approx. 0.8 μsec cycle pulse. Generated from SCLK.
MPX Y	DB-3BOARD IC252 ㉒Pin	O	Input select signal for the A-D converter. "H" when Y signal is selected. Approx. 0.4 μsec cycle pulse. Generated from SCLK.
SIC	DB-3BOARD IC252 ㉓Pin	O	Memory write clock. Approx. 0.2 μsec cycle pulse. Generated from SCLK.
A0~A7	DB-3BOARD IC252 ㉜-㉗ ㉕ ㉔Pin	O	Address signal for memory write and read. "H" pulse.
CAS	DB-3BOARD IC252 ㉝Pin	O	Column address strobe signal for memory write and read. "L" pulse.
RAS	DB-3BOARD IC252 ㉟Pin	O	Row address strobe signal for memory write and read. "L" pulse.
SOC	DB-3BOARD IC252 ㊱Pin	O	Memory read clock. Approx. 0.07 μsec cycle pulse.
DA Y	DB-3BOARD IC252 ㊲Pin	O	Y signal data D-A conversion clock. Approx 13 μsec cycle pulse.
DA R	DB-3BOARD IC252 ㊲Pin	O	R-Y signal data D-A conversion clock. Approx. 0.27 μsec cycle pulse.
DA B	DB-3BOARD IC252 ㊴Pin	O	B-Y signal data D-A conversion clock. Approx. 0.27 μsec cycle pulse.
$\overline{BLK}$	DB-3BOARD IC252 ㊶Pin	O	Memory read output blanking signal. "H" and V-cycle "H" pulse.
SWMM	DB-3BOARD IC252 ㊸Pin	O	Signal for inserting the child screen into the parent screen. "H" and V-cycle "H" pulse.
WG	DB-3BOARD IC252 ㊹Pin	O	Signal for framing the child screen in white. "H" and V-cycle "H" pulse.

3-13. TIMER — VIDEO/AUDIO/TUNER BLOCK INTERFACE

SIGNAL	Pin No.	I/O	I/O LEVEL
$\overline{\text{V DET}}$	MF-42BOARD IC601 ㊼Pin	I	"L" when a video signal is played back in the PB mode. "L“ when the video signal is inputted in the other modes.
$\overline{\text{SAP}}$ ($\overline{\text{VPS}}$)	MF-42BOARD IC601 (59)Pin		Not used.
LINE 1/$\overline{2}$	MF-42BOARD IC601 ㊽Pin	O	"H" when the input selector is at "LINE 1". Video and audio circuit input select signal.
LINE/$\overline{\text{TV}}$	MF-42BOARD IC601 ㊾Pin	O	"L" when the input selector is at "TUNER". Video and audio circuit input select signal.
$\overline{\text{MCS}}$ ($\overline{\text{CS}}$ TT65)	MF-42BOARD IC601 (65)Pin	O	Chip select signal to the tuner controller (TU-97 board IC301). V-cycle "L" pulse.

3-14. TIMER — KEY INPUT INTERFACE

SIGNAL	Pin No.	Input Voltage when Button Is Pressed					
		0 Vdc	1 Vdc	2 Vdc	3 Vdc	4 Vdc	5 Vdc
AD 0	MF-42BOARD IC601 ㉟Pin	CLOCK SET (∗1)	TIMER SET (∗1)	CHECK (∗1)	− (∗1)	+ (∗1)	∗2
AD 1	MF-42BOARD IC601 ㊱Pin	CLEAR (∗1)	NEXT (∗1)		TIMER REC ON/OFF (∗1)	QUICK TIMER (∗1)	∗2
AD 2	MF-42BOARD IC601 ㊲Pin	TV/VTR (S614)	CHANNEL − (S612)	CHANNEL + (S613)	PRESET TUNING + (∗1)	PRESET TUNING − (∗1)	∗2
AD 3	MF-42BOARD IC601 ㊳Pin	INPUT SELECT (S611)	CATV/NORMAL (∗1)	PRESET (∗1)			∗2
AD 4	MF-42BOARD IC601 ㊴Pin	STOP (∗1)	PAUSE/STILL (∗1)	FF (∗1)	REW (∗1)	COUNTER RESET (S616)	∗2
AD 5	MF-42BOARD IC601 ㊵Pin	EDIT MONITOR (∗1)	PLAY (∗1)	REC (∗1)	INSERT (∗1)		∗2
AD 6	MF-42BOARD IC601 ㊶Pin	POWER (MF-44 BOARD S691)	EJECT (S602)	SYNCHRO EDIT (∗1)	REC MODE (S604)		∗2
AD 7	MF-42BOARD IC601 ㊷Pin				COMMAND MODE 「VTR1」 (IO-14 BOARD S903)	COMMAND MODE 「VTR2」 (IO-14 BOARD S903)	COMMAND MODE 「VTR3」 (IO-14 BOARD S903)

∗1. Buttons in the operation switch block.
∗2. When no button is pressed.

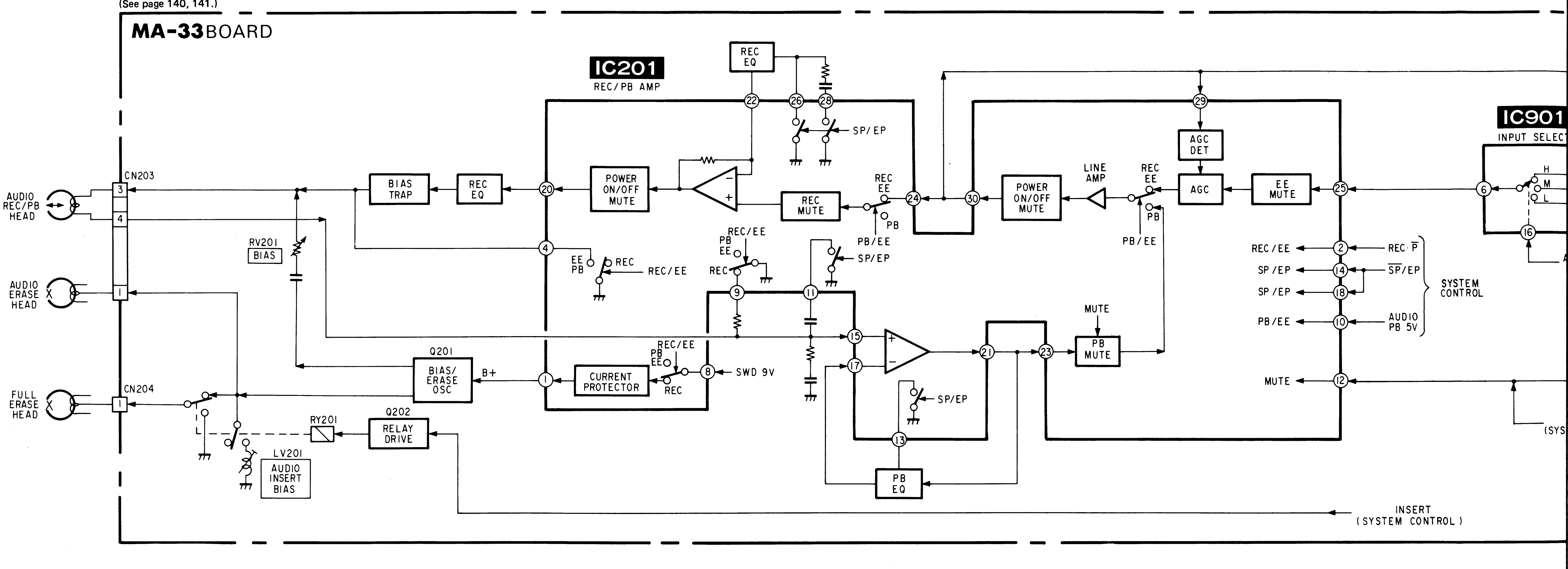
3-15. TIMER — TIMER PERIPHERAL CIRCUIT INTERFACE

SIGNAL	Pin No.	I/O	I/O LEVEL
$\overline{\text{SC}}$	MF-42BOARD IC601 ㊹Pin	O	Serial communication clock to/from the system controller (MA-33 board, IC501), SIRCS IC (IC602), the tuner controller (TU-97 board IC301) and VPS IC (TM-95 board IC002 ∗1). V-cycle “L” pulse.
SO	MF-42BOARD IC601 ㊺Pin	O	Serial communication data output. V-cycle “L” pulse.
$\overline{\text{SI}}$	MF-42BOARD IC601 ㊻Pin	I	Serial communication data input. V-cycle “L“ pulse.
$\overline{\text{PWR FAIL}}$	MF-42BOARD IC601 (61)Pin	I	Normally “H”. “L” when UN 5.8 V is lowered to about 4.5 V or less. Power failure detection input.
RMC	MF-42BOARD IC601 (62)Pin	I	Normally “H”. “L” pulse when an infrared remote-control signal or control S signal is inputted.
$\overline{\text{COSMO RST}}$	MF-42BOARD IC601 (63)Pin	O	Reset signal to the ICs such as system controller, etc. Normally “H”. “L” when a power failure is detected and restored.
POWER ON	MF-42BOARD IC601 (64)Pin	O	“H” at power-on and “L“ at power-off. Swiched power source (SW5V, SW9V, SW12W) ON/OFF signal.
VPS RST	MF-42BOARD IC601 (67)Pin	O	Reset signal to the VPS IC (TM-95 board IC002). ∗1.
$\overline{\text{VPS CS}}$	MF-42BOARD IC601 (68)Pin	O	Chip select signal to the VPS IC. V-cycle “L” pulse. ∗1.
$\overline{\text{COSMO CS}}$	MF-42BOARD IC601 (69)Pin	O	Chip select signal to the system controller. V-cycle “L” pulse.
$\overline{\text{SIRCS CS}}$	MF-42BOARD IC601 (70)Pin	O	Chip select signal to the SIRCS IC. V-cycle “L” pulse
PG1	MF-42BOARD IC601 ②Pin	O	Normally “L”. “H” when sounding the buzzer.
$\overline{\text{RESET}}$	MF-42BOARD IC601 ㉜Pin	I	Normally “H”. “L” when the timer back up power source (IC604 pin②) is lowered to about 3 V DC or less.

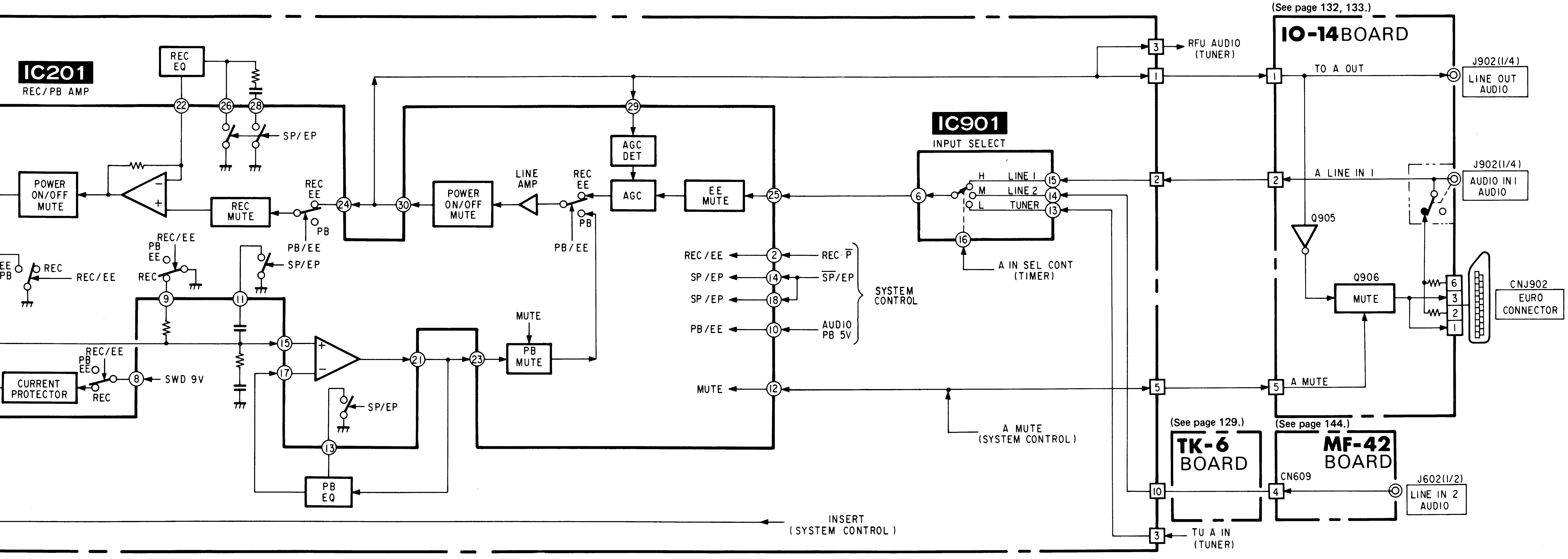
∗1. West germany model only.

3-16. AUDIO BLOCK DIAGRAM

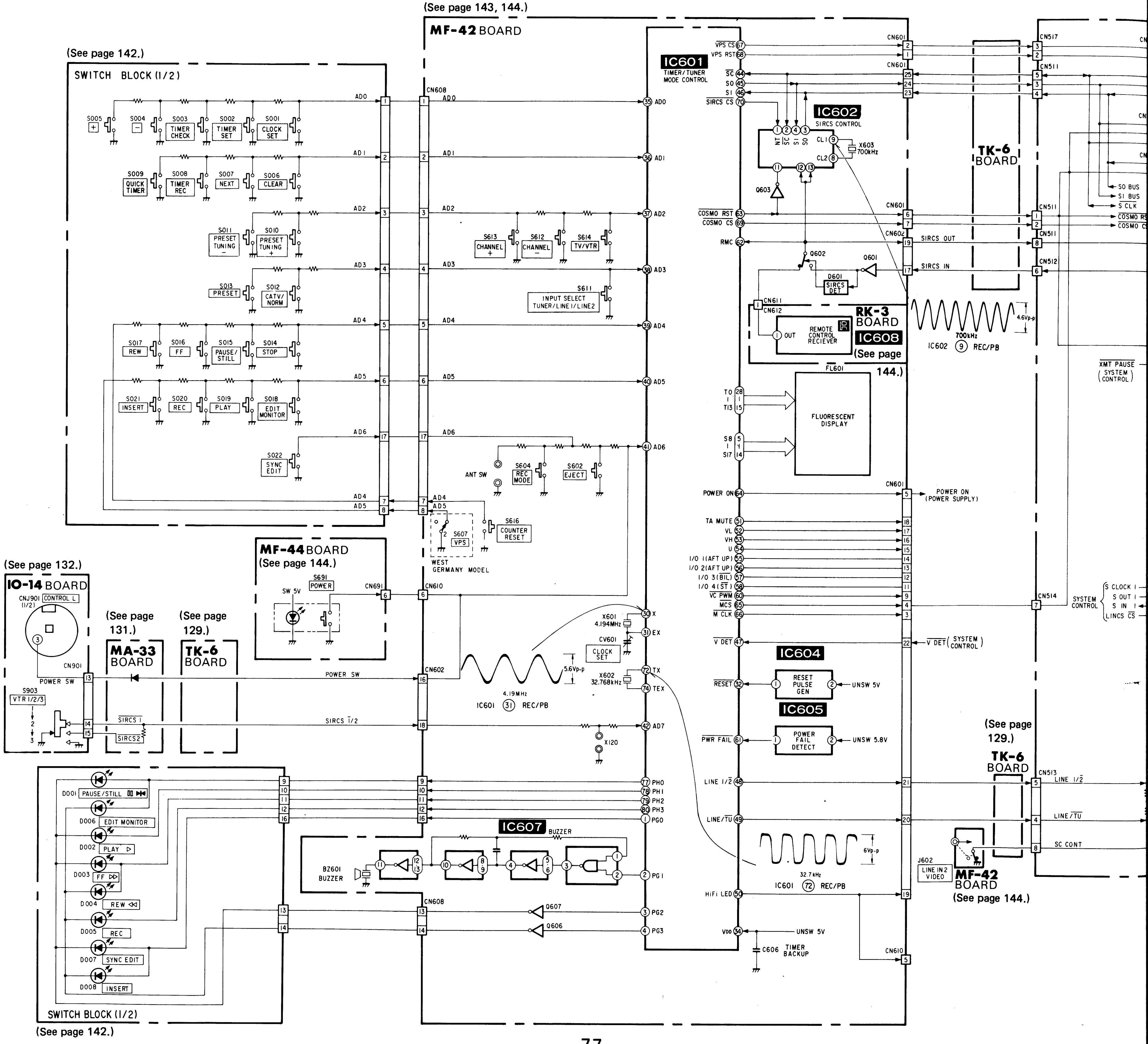
(See page 140, 141.)

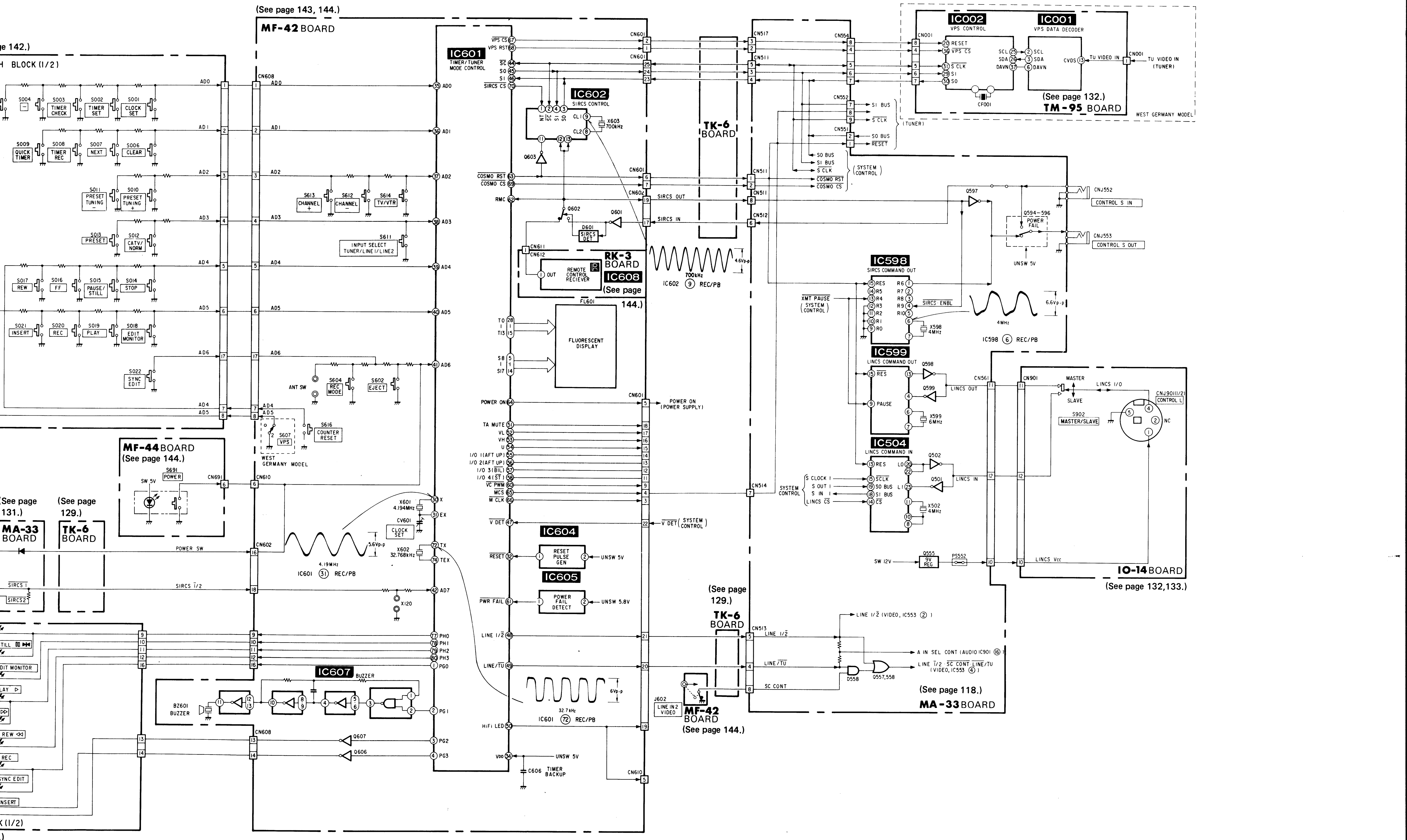


MA-33BOARD
IC201
REC/PB AMP
REC EQ
SP/EP
POWER ON/OFF MUTE
BIAS TRAP
REC EQ
REC MUTE
REC EE
PB
PB/EE
AUDIO REC/PB HEAD
CN203
RV201 BIAS
EE PB
REC
REC/EE
PB EE
REC
AUDIO ERASE HEAD
Q201
BIAS/ERASE OSC
B+
CURRENT PROTECTOR
SWD 9V
FULL ERASE HEAD
CN204
RY201
Q202
RELAY DRIVE
LV201
AUDIO INSERT BIAS
PB EQ
MUTE
PB MUTE
AGC DET
AGC
EE MUTE
LINE AMP
POWER ON/OFF MUTE
IC901
INPUT SELEC
H
M
L
REC/EE
SP/EP
SP/EP
PB/EE
REC P
SP/EP
AUDIO PB 5V
SYSTEM CONTROL
MUTE
(SYS
INSERT (SYSTEM CONTROL)

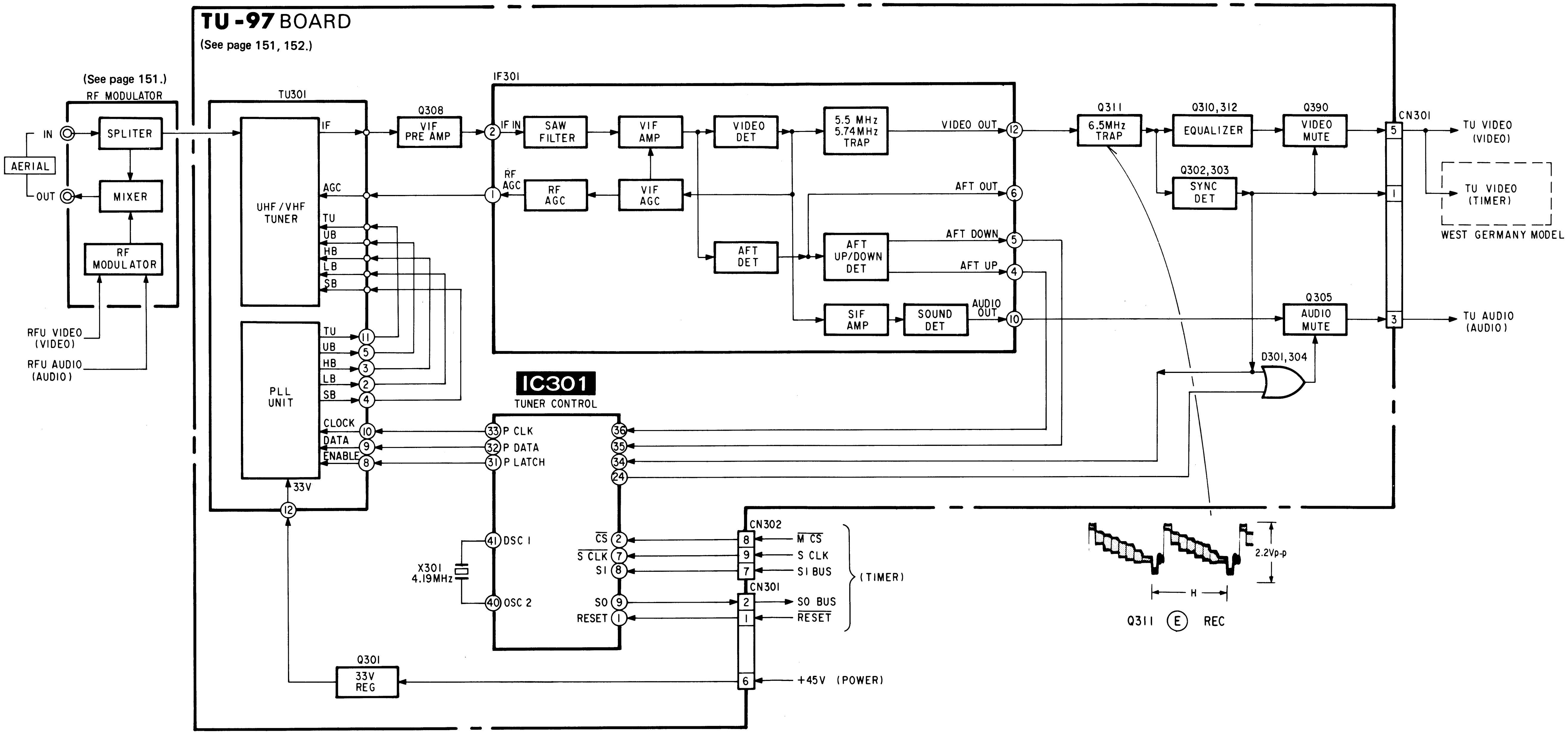

IC201
REC/PB AMP
REC EQ
22
26
28
SP/EP
POWER ON/OFF MUTE
REC MUTE
REC EE
PB
PB/EE
24
30
POWER ON/OFF MUTE
LINE AMP
REC EE
PB
PB/EE
29
AGC DET
AGC
EE MUTE
25
REC/EE
PB
EE
REC
REC/EE
REC
REC/EE
SP/EP
9
11
15
17
21
23
MUTE
PB MUTE
REC/EE
PB
EE
CURRENT PROTECTOR
REC
8
SWD 9V
SP/EP
13
PB EQ
REC/EE
2
REC·P
SP/EP
14
SP/EP
SP/EP
18
PB/EE
10
AUDIO PB 5V
SYSTEM CONTROL
MUTE
12
IC901
INPUT SELECT
6
H
M
L
LINE 1
LINE 2
TUNER
15
14
13
16
A IN SEL CONT (TIMER)
A MUTE (SYSTEM CONTROL)
INSERT (SYSTEM CONTROL)
3
RFU AUDIO (TUNER)
1
2
5
10
3
TU A IN (TUNER)
(See page 132, 133.)
IO-14 BOARD
1
TO A OUT
J902(1/4)
LINE OUT AUDIO
2
A LINE IN 1
J902(1/4)
AUDIO IN 1 AUDIO
Q905
Q906
MUTE
6
3
2
1
CNJ902
EURO CONNECTOR
5
A MUTE
(See page 129.)
TK-6 BOARD
(See page 144.)
MF-42 BOARD
CN609
4
J602(1/2)
LINE IN 2 AUDIO

3-17. TIMER, MODE CONTROL BLOCK DIAGRAM

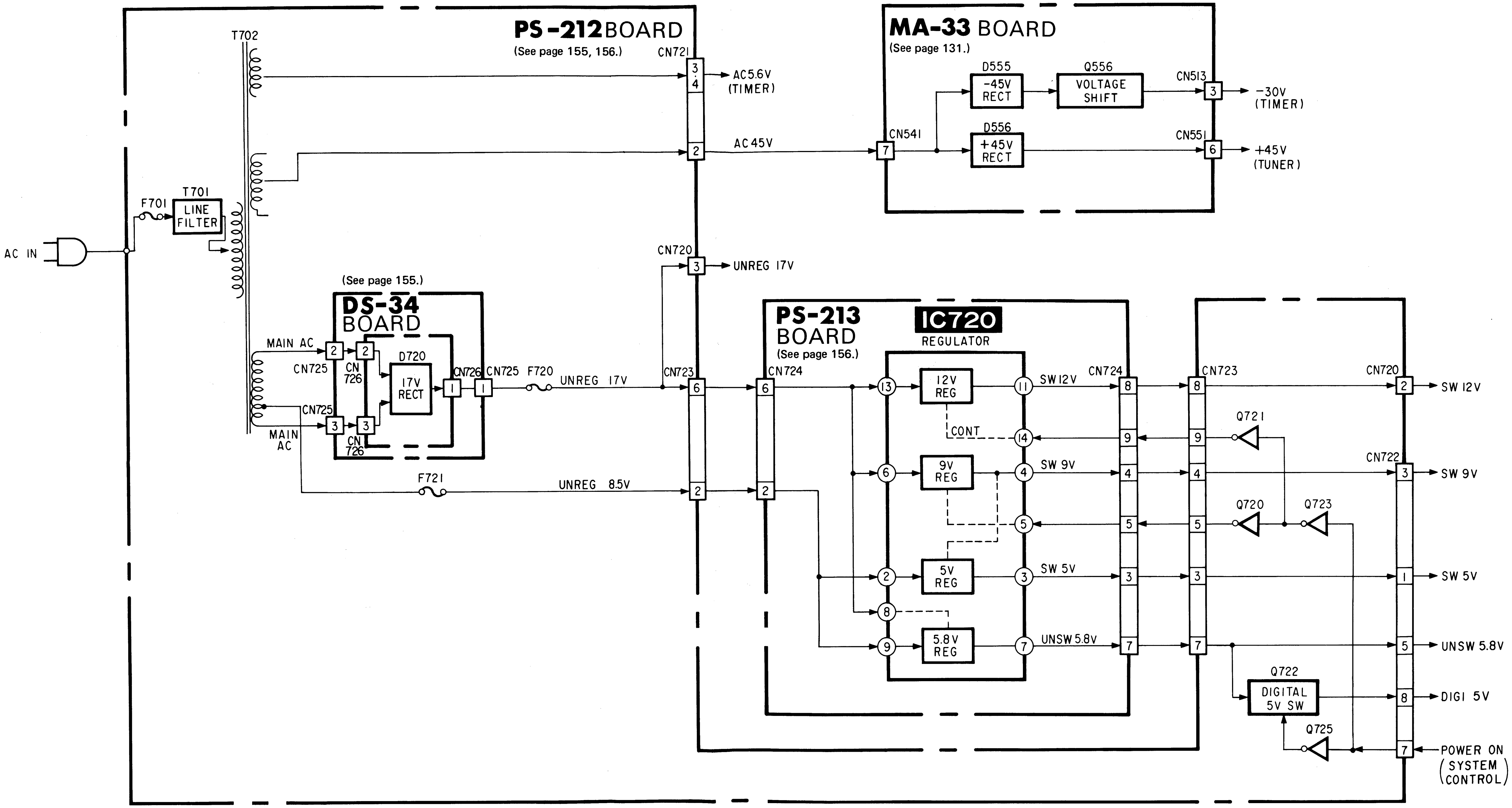

(See page 143, 144.)
MF-42 BOARD
IC601 TIMER/TUNER MODE CONTROL
IC602 SIRCS CONTROL
X603 700kHz
Q603
Q602
Q601
D601 SIRCS DET
(See page 142.)
SWITCH BLOCK (1/2)
S005 +
S004 −
S003 TIMER CHECK
S002 TIMER SET
S001 CLOCK SET
S009 QUICK TIMER
S008 TIMER REC
S007 NEXT
S006 CLEAR
S011 PRESET TUNING −
S010 PRESET TUNING +
S013 PRESET
S012 CATV/NORM
S017 REW
S016 FF
S015 PAUSE/STILL
S014 STOP
S021 INSERT
S020 REC
S019 PLAY
S018 EDIT MONITOR
S022 SYNC EDIT
AD0
AD1
AD2
AD3
AD4
AD5
AD6
AD7
CN608
S613 CHANNEL +
S612 CHANNEL −
S614 TV/VTR
S611 INPUT SELECT TUNER/LINE1/LINE2
ANT SW
S604 REC MODE
S602 EJECT
S616 COUNTER RESET
S607 VPS
WEST GERMANY MODEL
CN601
CN602
CN610
VPS CS
VPS RST
SC
SO
SI
SIRCS CS
COSMO RST
COSMO CS
RMC
SIRCS OUT
SIRCS IN
CN611
CN612
RK-3 BOARD
IC608
REMOTE CONTROL RECIEVER
OUT
(See page 144.)
FL601
FLUORESCENT DISPLAY
TO
TI3
S8
S17
POWER ON
POWER ON (POWER SUPPLY)
TA MUTE
VL
VH
U
I/O 1 (AFT UP)
I/O 2 (AFT UP)
I/O 3 (BIL)
I/O 4 (ST)
VC PWM
MCS
M CLK
V DET
V DET (SYSTEM CONTROL)
IC604
RESET PULSE GEN
RESET
UNSW 5V
IC605
POWER FAIL DETECT
PWR FAIL
UNSW 5.8V
LINE 1/2
LINE/TU
HiFi LED
VDD
UNSW 5V
C606 TIMER BACKUP
X601 4.194MHz
CV601 CLOCK SET
X602 32.768kHz
X
EX
TX
TEX
5.6Vp-p
4.19MHz
IC601 (31) REC/PB
700kHz
4.6Vp-p
IC602 (9) REC/PB
6Vp-p
32.7kHz
IC601 (72) REC/PB
X120
PH0
PH1
PH2
PH3
PG0
PG1
PG2
PG3
IC607 BUZZER
BZ601 BUZZER
Q607
Q606
D001 PAUSE/STILL
D006 EDIT MONITOR
D002 PLAY
D003 FF
D004 REW
D005 REC
D007 SYNC EDIT
D008 INSERT
SWITCH BLOCK (1/2)
(See page 142.)
MF-44 BOARD
(See page 144.)
S691 POWER
SW 5V
CN691
(See page 132.)
IO-14 BOARD
CNJ901 CONTROL L (1/2)
CN901
POWER SW
S903 VTR 1/2/3
SIRCS 1
SIRCS 2
SIRCS 1/2
(See page 131.)
MA-33 BOARD
(See page 129.)
TK-6 BOARD
CN517
CN511
CN512
CN514
CN513
SO BUS
SI BUS
S CLK
COSMO RST
COSMO CS
XMT PAUSE (SYSTEM CONTROL)
SYSTEM CONTROL
S CLOCK
S OUT
S IN
LINCS CS
(See page 129.)
TK-6 BOARD
LINE 1/2
LINE/TU
SC CONT
J602 LINE IN 2 VIDEO
MF-42 BOARD
(See page 144.)


(See page 143, 144.)
MF-42 BOARD
ge 142.)
H BLOCK (1/2)
IC601
TIMER/TUNER MODE CONTROL
IC602
SIRCS CONTROL
X603 700kHz
Q603
Q602
Q601
D601 SIRCS DET
RK-3 BOARD
IC608
(See page 144.)
REMOTE CONTROL RECIEVER
FL601
FLUORESCENT DISPLAY
IC604
RESET PULSE GEN
IC605
POWER FAIL DETECT
UNSW 5V
UNSW 5.8V
IC607
BUZZER
BZ601 BUZZER
Q607
Q606
C606 TIMER BACKUP
X601 4.194MHz
CV601 CLOCK SET
X602 32.768kHz
4.19MHz
IC601 (31) REC/PB
5.6Vp-p
700kHz
IC602 (9) REC/PB
4.6Vp-p
32.7kHz
IC601 (72) REC/PB
6Vp-p
S001 CLOCK SET
S002 TIMER SET
S003 TIMER CHECK
S004 −
S006 CLEAR
S007 NEXT
S008 TIMER REC
S009 QUICK TIMER
S010 PRESET TUNING +
S011 PRESET TUNING −
S012 CATV/NORM
S013 PRESET
S014 STOP
S015 PAUSE/STILL
S016 FF
S017 REW
S018 EDIT MONITOR
S019 PLAY
S020 REC
S021 INSERT
S022 SYNC EDIT
S613 CHANNEL +
S612 CHANNEL −
S614 TV/VTR
S611 INPUT SELECT TUNER/LINE 1/LINE2
S604 REC MODE
S602 EJECT
ANT SW
S616 COUNTER RESET
S607 VPS
WEST GERMANY MODEL
X120
MF-44 BOARD
(See page 144.)
S691 POWER
SW 5V
(See page 131.)
MA-33 BOARD
(See page 129.)
TK-6 BOARD
POWER SW
SIRCS 1/2
SIRCS 1
SIRCS2
STILL
EDIT MONITOR
PLAY
REW
REC
SYNC EDIT
INSERT
K (1/2)
VPS CS
VPS RST
SC
SO
SI
SIRCS CS
AD0
AD1
AD2
AD3
AD4
AD5
AD6
AD7
COSMO RST
COSMO CS
RMC
POWER ON
TA MUTE
VL
VH
U
I/O 1(AFT UP)
I/O 2(AFT UP)
I/O 3(BIL)
I/O 4(ST)
VC PWM
MCS
M CLK
X
EX
TX
TEX
V DET
RESET
PWR FAIL
LINE 1/2
LINE/TU
HiFi LED
VDD
PH0
PH1
PH2
PH3
PG0
PG1
PG2
PG3
CN601
CN602
CN608
CN610
CN611
CN612
CN691
SIRCS OUT
SIRCS IN
POWER ON (POWER SUPPLY)
V DET (SYSTEM CONTROL)
TK-6 BOARD
CN517
CN511
CN512
CN514
CN513
CN554
CN552
CN551
IC002
VPS CONTROL
IC001
VPS DATA DECODER
RESET
VPS CS
S CLK
SI
SO
SCL
SDA
DAVN
CVDS
TU VIDEO IN
TU VIDEO IN (TUNER)
CN001
CF001
(See page 132.)
TM-95 BOARD
WEST GERMANY MODEL
SI BUS
S CLK
SO BUS
RESET
(TUNER)
SO BUS
SI BUS
S CLK
COSMO RST
COSMO CS
(SYSTEM CONTROL)
Q597
Q594−596 POWER FAIL
UNSW 5V
CNJ552
CONTROL S IN
CNJ553
CONTROL S OUT
IC598
SIRCS COMMAND OUT
XMT PAUSE (SYSTEM CONTROL)
RES
R0
R1
R2
R3
R4
R5
R6
R7
R8
R9
R10
SIRCS ENBL
X598 4MHz
6.6Vp-p
4MHz
IC598 (6) REC/PB
IC599
LINCS COMMAND OUT
PAUSE
Q598
Q599
LINCS OUT
X599 6MHz
IC504
LINCS COMMAND IN
SYSTEM CONTROL
S CLOCK
S OUT
S IN
LINCS CS
SCLK
SO BUS
SI BUS
CS
LO
LI
Q502
Q501
LINCS IN
X502 4MHz
CN561
CN901
MASTER
SLAVE
LINCS I/O
S902 MASTER/SLAVE
CNJ901(1/2) CONTROL L
NC
SW 12V
Q555 9V REG
PS552
LINCS Vcc
IO-14 BOARD
(See page 132,133.)
(See page 129.)
TK-6 BOARD
LINE 1/2
LINE/TU
SC CONT
LINE 1/2 (VIDEO, IC553 (2))
A IN SEL CONT (AUDIO IC901 (6))
LINE 1/2 SC CONT LINE/TU (VIDEO, IC553 (4))
D558
Q557,558
(See page 118.)
MA-33 BOARD
J602 LINE IN 2 VIDEO
MF-42 BOARD
(See page 144.)

3-18. TUNER BLOCK DIAGRAM

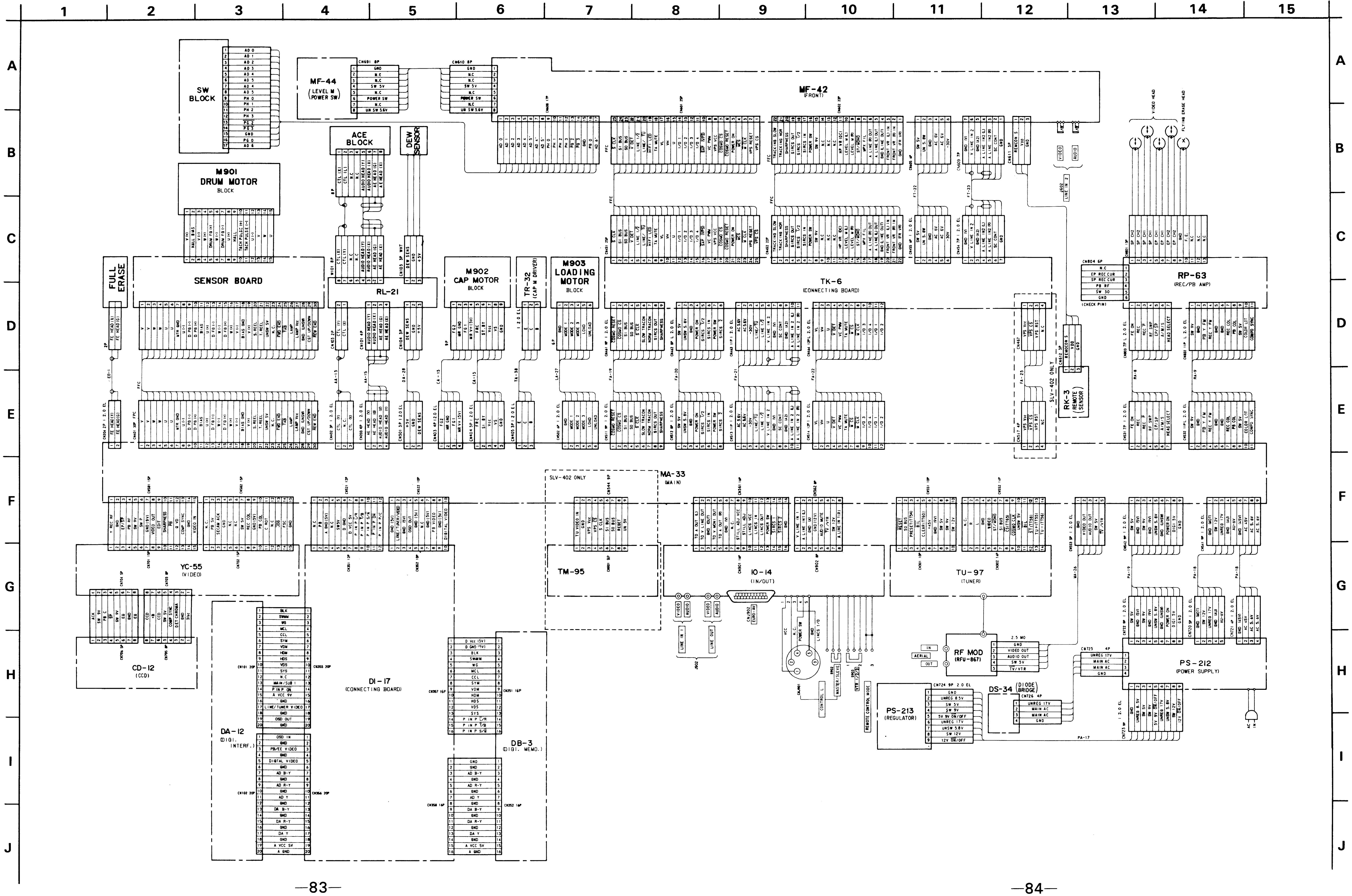

TU-97 BOARD
(See page 151, 152.)
(See page 151.)
RF MODULATOR
AERIAL
IN
OUT
SPLITER
MIXER
RF MODULATOR
RFU VIDEO (VIDEO)
RFU AUDIO (AUDIO)
TU301
UHF/VHF TUNER
IF
AGC
TU
UB
HB
LB
SB
PLL UNIT
CLOCK
DATA
ENABLE
33V
Q308
VIF PRE AMP
IF301
IF IN
SAW FILTER
VIF AMP
VIDEO DET
5.5 MHz 5.74MHz TRAP
VIDEO OUT
RF AGC
VIF AGC
AFT OUT
AFT DET
AFT UP/DOWN DET
AFT DOWN
AFT UP
SIF AMP
SOUND DET
AUDIO OUT
Q311
6.5MHz TRAP
Q310,312
EQUALIZER
Q390
VIDEO MUTE
Q302,303
SYNC DET
Q305
AUDIO MUTE
D301,304
CN301
TU VIDEO (VIDEO)
TU VIDEO (TIMER)
WEST GERMANY MODEL
TU AUDIO (AUDIO)
IC301
TUNER CONTROL
P CLK
P DATA
P LATCH
OSC 1
OSC 2
X301 4.19MHz
CS
S CLK
SI
SO
RESET
CN302
M CS
S CLK
SI BUS
SO BUS
RESET
(TIMER)
Q301
33V REG
+45V (POWER)
2.2Vp-p
H
Q311 E REC

3-19. POWER BLOCK DIAGRAM

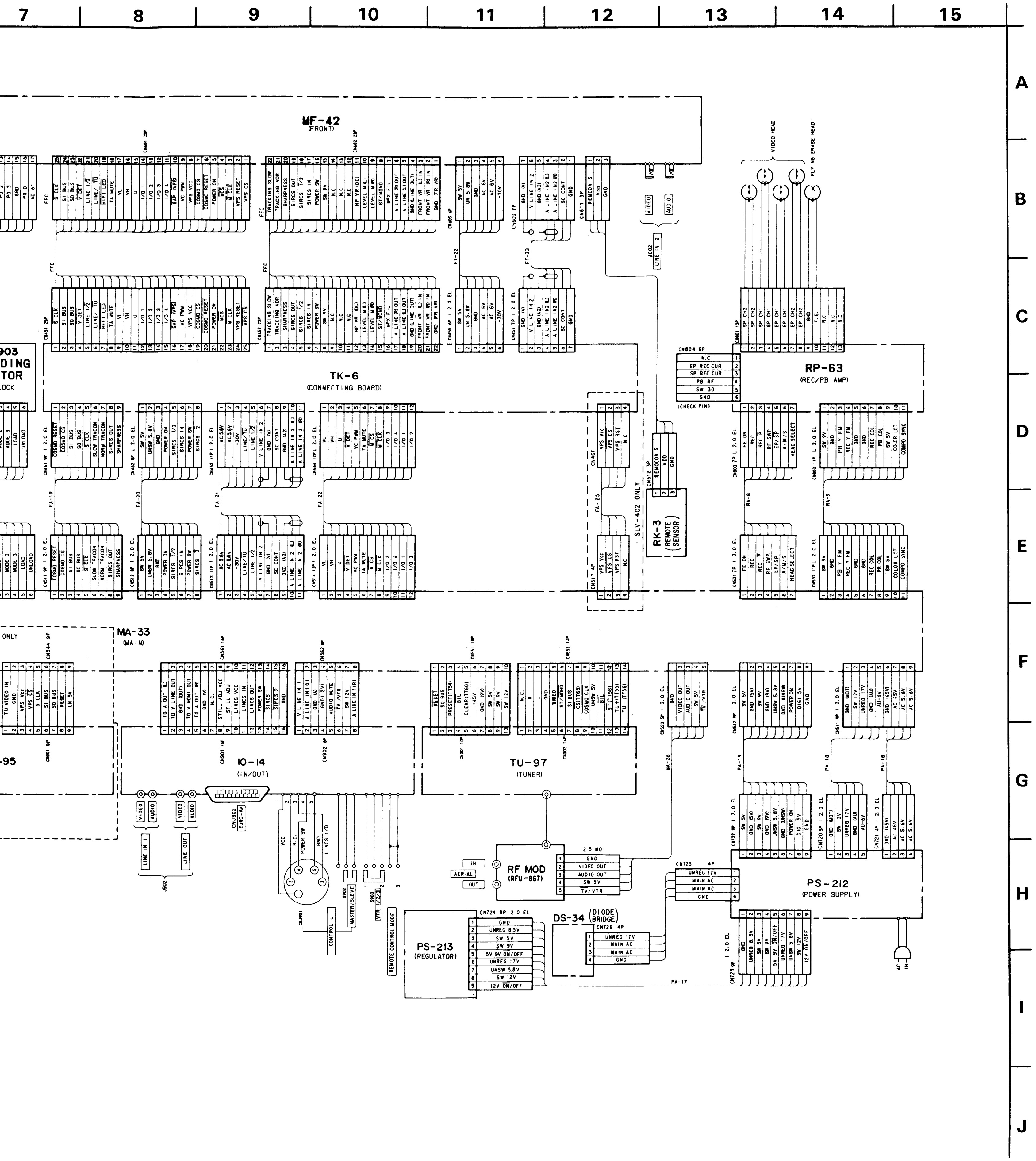

PS-212 BOARD
(See page 155, 156.)
T702
CN721
AC5.6V (TIMER)
AC45V
T701
LINE FILTER
F701
AC IN
CN720
UNREG 17V
(See page 155.)
DS-34 BOARD
MAIN AC
CN725
CN 726
D720
17V RECT
CN726
CN725
F720
UNREG 17V
CN723
MAIN AC
F721
UNREG 8.5V
MA-33 BOARD
(See page 131.)
D555
-45V RECT
Q556
VOLTAGE SHIFT
CN513
-30V (TIMER)
CN541
D556
+45V RECT
CN551
+45V (TUNER)
PS-213 BOARD
(See page 156.)
CN724
IC720
REGULATOR
12V REG
CONT
9V REG
5V REG
5.8V REG
SW12V
SW 9V
SW 5V
UNSW5.8V
CN724
CN723
CN720
Q721
CN722
Q720
Q723
Q722
DIGITAL 5V SW
Q725
SW 12V
SW 9V
SW 5V
UNSW 5.8V
DIGI 5V
POWER ON (SYSTEM CONTROL)

SECTION 4
PRINTED WIRING BOARDS AND SCHEMATIC DIAGRAMS

4-1. FRAME SCHEMATIC DIAGRAM



1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
A
B
C
D
E
F
G
H
I
J
SW BLOCK
MF-44 (LEVEL M POWER SW)
CN691 8P
CN610 8P
MF-42 (FRONT)
ACE BLOCK
DEW SENSOR
M901 DRUM MOTOR BLOCK
VIDEO HEAD
FLYING ERASE HEAD
FULL ERASE
SENSOR BOARD
RL-21
M902 CAP MOTOR BLOCK
TR-32 (CAP M DRIVER)
M903 LOADING MOTOR BLOCK
TK-6 (CONNECTING BOARD)
RP-63 (REC/PB AMP)
CN804 6P
(CHECK PIN)
SLV-402 ONLY
RK-3 (REMOTE SENSOR)
MA-33 (MAIN)
SLV-402 ONLY
YC-55 (VIDEO)
TM-95
IO-14 (IN/OUT)
TU-97 (TUNER)
CD-12 (CCD)
DA-12 (DIGI. INTERF.)
DI-17 (CONNECTING BOARD)
DB-3 (DIGI. MEMO.)
RF MOD (RFU-867)
IN
AERIAL
OUT
PS-212 (POWER SUPPLY)
PS-213 (REGULATOR)
DS-34 (DIODE BRIDGE)
CN724 9P 2.0 EL
CN726 4P
CN725 4P
VIDEO
AUDIO
LINE IN 1
LINE OUT
LINE IN 2
J502
CN902 EURO-AV
CONTROL L
MASTER/SLEVE
REMOTE CONTROL MODE
AC IN
FFC
PA-17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A
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I
J
MF-42
(FRONT)
VIDEO HEAD
FLYING ERASE HEAD
TK-6
(CONNECTING BOARD)
RP-63
(REC/PB AMP)
CN804 6P
N.C
EP REC CUR
SP REC CUR
PB RF
SW 30
GND
(CHECK PIN)
SLV-402 ONLY
RK-3
(REMOTE SENSOR)
J602
LINE IN 2
VIDEO
AUDIO
MA-33
(MAIN)
IO-14
(IN/OUT)
TU-97
(TUNER)
LINE IN 1
LINE OUT
J902
CNJ902
EURO-AV
RF MOD
(RFU-867)
IN
AERIAL
OUT
PS-212
(POWER SUPPLY)
CN725 4P
UNREG 17V
MAIN AC
MAIN AC
GND
PS-213
(REGULATOR)
CN724 9P 2.0 EL
GND
UNREG 8.5V
SW 5V
SW 9V
5V 9V ON/OFF
UNREG 17V
UNSW 5.8V
SW 12V
12V ON/OFF
DS-34
(DIODE BRIDGE)
CN726 4P
UNREG 17V
MAIN AC
MAIN AC
GND
REMOTE CONTROL MODE
AC IN

4-2. PRINTED WIRING BOARDS AND SCHEMATIC DIAGRAMS

THIS NOTE IS COMMON FOR PRINTED WIRING BOARDS AND SCHEMATIC DIAGRAMS.
(In addition to this, the necessary note is printed in each block.)

●For printed wiring board

- ○— : indicates a lead wire mounted on the component side.
- ●— : indicates a lead wire mounted on the conductor side.
- ▨ : Pattern from the side which enables seeing.
- ▒ : Pattern of the rear side.
- Circled numbers refer to waveforms.

Caution:

Pattern face side: (Conductor Side)	Parts on the pattern face side seen from the pattern face are indicated.
Parts face side: (Component Side)	Parts on the parts face side seen from the parts face are indicated.

●For schematic diagram

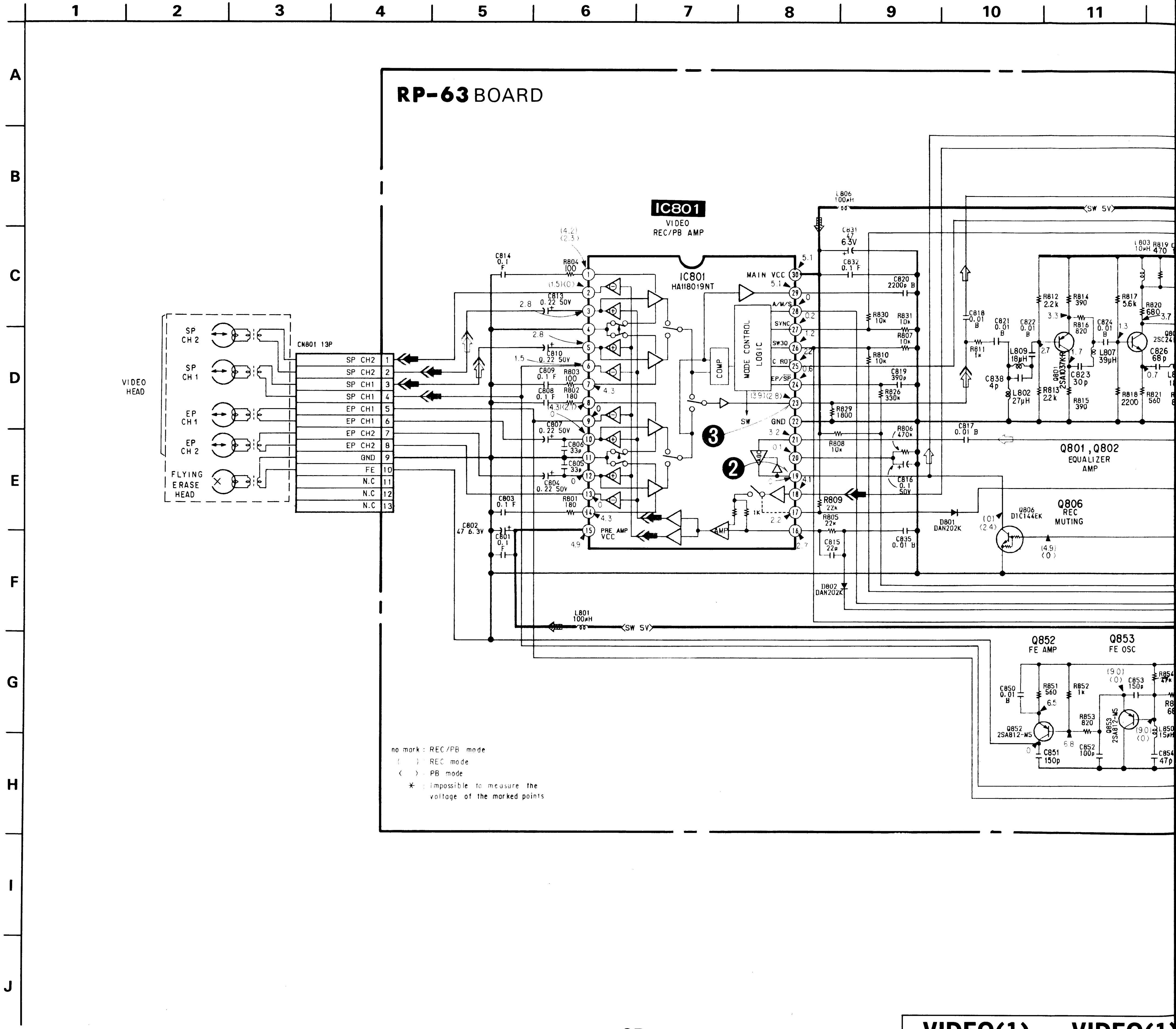
- Caution when replacing chip parts.
  New parts must be attached after removal of chip.
  Be careful not to heat the minus side of tantalum capacitor, because it is damaged by the heat.
- All resistors are in ohms,1/10W unless otherwise noted.
- Chip resistor are 1/10W unless otherwise noted.
  kΩ: 1000Ω, MΩ: 1000kΩ.
- All capacitors are in μF unless otherwise noted. pF : μμF.
  50V or less are not indicated except for electrolytics and tantalums.
- All variable and adjustable resistors have characteristic curve B, unless otherwise noted.
- ▭ : nonflammable resistor.
- ▭ : fusible resistor.
- ☐ : panel designation.
- △ : internal component.
- ☐ : adjustment for repair.
- ━━ : B + Line
- ‒ ‒ ‒ : B – Line.
- ⇨ : IN/OUT direction of B (+, –) line.
- Circled numbers refer to waveforms.
- Voltages are dc between ground and measurement points.
- Readings are taken with a color-bar (RF) signal input. (TUNER INPUT)
- Readings are taken with a digital multimeter (DC10MΩ).
- Voltage variations may be noted due to normal production tolerances.

Note: The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

When indicating parts by reference number, please include the board name.

RP-63 (REC/PB AMP) SCHEMATIC DIAGRAM

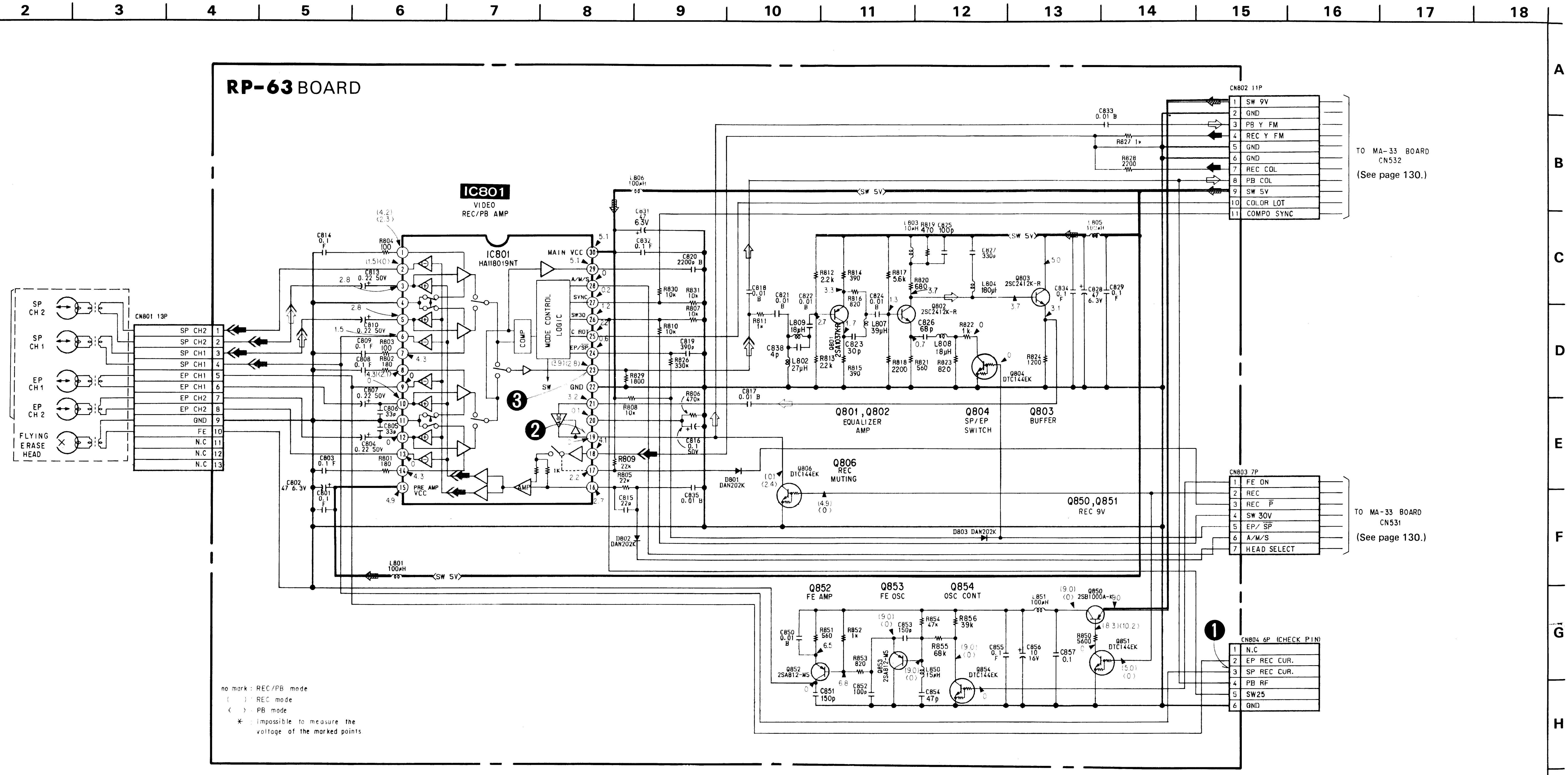
—Ref. No. RP-63 BOARD : 1,000 series—



RP-63 BOARD
IC801
VIDEO
REC/PB AMP
IC801
HA118019NT
MAIN VCC
MODE CONTROL LOGIC
COMP
PRE AMP VCC
AMP
VIDEO HEAD
SP CH 2
SP CH 1
EP CH 1
EP CH 2
FLYING ERASE HEAD
CN801 13P
SP CH2
SP CH2
SP CH1
SP CH1
EP CH1
EP CH1
EP CH2
EP CH2
GND
FE
N.C
N.C
N.C
SW 5V
L801 100μH
Q801, Q802
EQUALIZER AMP
Q806
REC MUTING
D801 DAN202K
D802 DAN202K
Q852
FE AMP
Q853
FE OSC

no mark : REC/PB mode
( ) : REC mode
⟨ ⟩ : PB mode
✳ : Impossible to measure the voltage of the marked points

AMP) SCHEMATIC DIAGRAM
OARD : 1,000 series—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18
A
B
C
D
E
F
G
RP-63 BOARD
IC801
VIDEO
REC/PB AMP
IC801
HA118019NT
MAIN VCC
A/M/S
SYNC
SW30
C RO
EP/SP
GND
COMP
MODE CONTROL LOGIC
PRE AMP VCC
AMP
SW
SP CH2
SP CH1
EP CH1
EP CH2
FLYING ERASE HEAD
CN801 13P
SP CH2
SP CH2
SP CH1
SP CH1
EP CH1
EP CH1
EP CH2
EP CH2
GND
FE
N.C
N.C
N.C
CN802 11P
SW 9V
GND
PB Y FM
REC Y FM
GND
GND
REC COL
PB COL
SW 5V
COLOR LOT
COMPO SYNC
TO MA-33 BOARD CN532
(See page 130.)
CN803 7P
FE ON
REC
REC P
SW 30V
EP/ SP
A/M/S
HEAD SELECT
TO MA-33 BOARD CN531
(See page 130.)
CN804 6P (CHECK PIN)
N.C
EP REC CUR.
SP REC CUR.
PB RF
SW25
GND
Q801, Q802
EQUALIZER AMP
Q804
SP/EP SWITCH
Q803
BUFFER
Q806
REC MUTING
Q850, Q851
REC 9V
Q852
FE AMP
Q853
FE OSC
Q854
OSC CONT
(SW 5V)
L801 100μH
L806 100μH
L805 100μH
D801 DAN202K
D802 DAN202K
D803 DAN202K
Q801 2SA1037K
Q802 2SC2412K-R
Q803 2SC2412K-R
Q804 DTC144EK
Q806 DTC144EK
Q850 2SB1000A-K
Q851 DTC144EK
Q852 2SA812-M5
Q853 2SA812-M5
Q854 DTC144EK
❶
❷
❸

no mark : REC/PB mode
( ) : REC mode
< > : PB mode
* : impossible to measure the voltage of the marked points

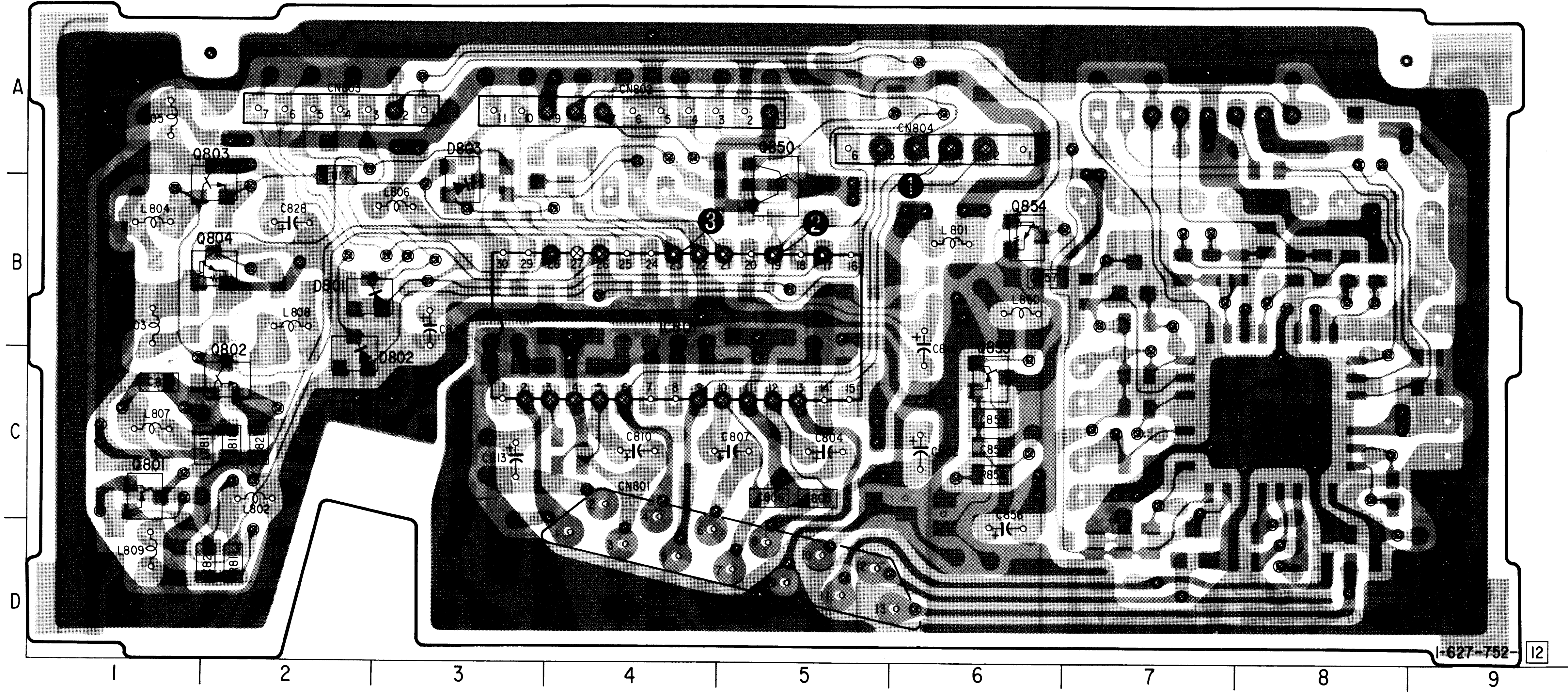
- Signal path

➡ : REC Y Signal
⇨ : PB Y Signal
➡ : REC CHROMA Signal
⇨ : PB CHROMA Signal
➡ : REC Y/CHROMA Signal
⇨ : PB Y/CHROMA Signal

RP-63 (REC/PB AMP) PRINTED WIRING BOARD

—Ref. No. RP-63 BOARD : 1,000 series—

RP-63 BOARD (COMPONENT SIDE)


A
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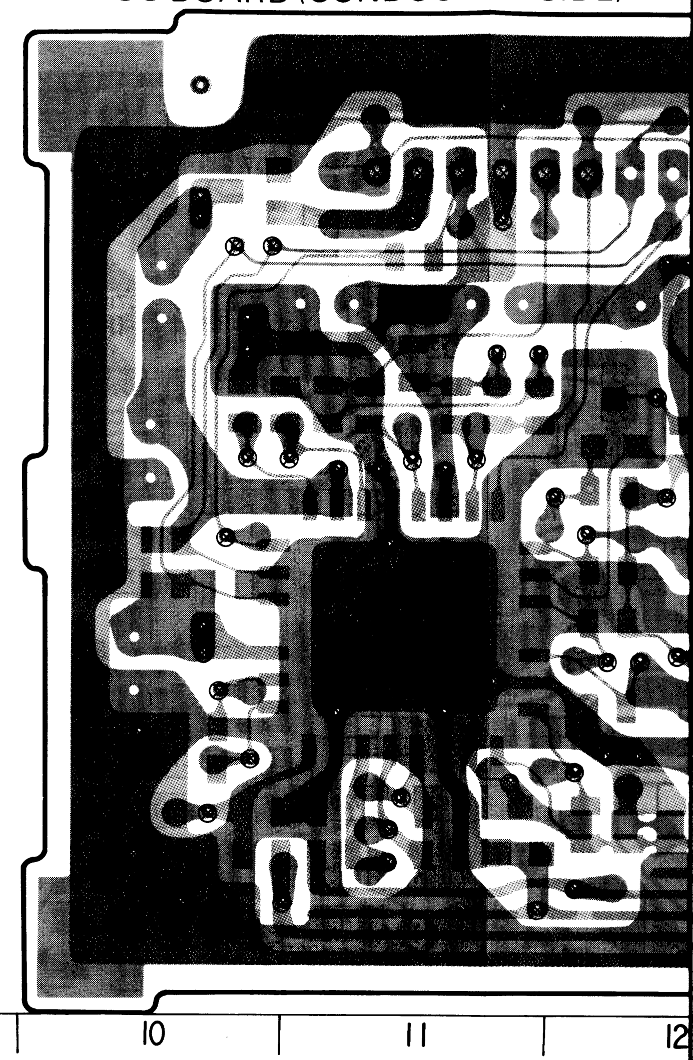
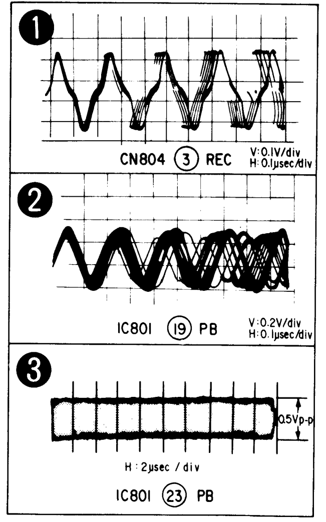
CN803
CN802
CN804
Q803
Q804
Q802
Q801
Q850
Q854
Q853
D803
D801
D802
IC801
L804
L806
L808
L807
L802
L809
L801
L850
C828
C810
C807
C804
C856
CN801
1-627-752- 12

RP-63 BOARD (CONDUCTOR SIDE)

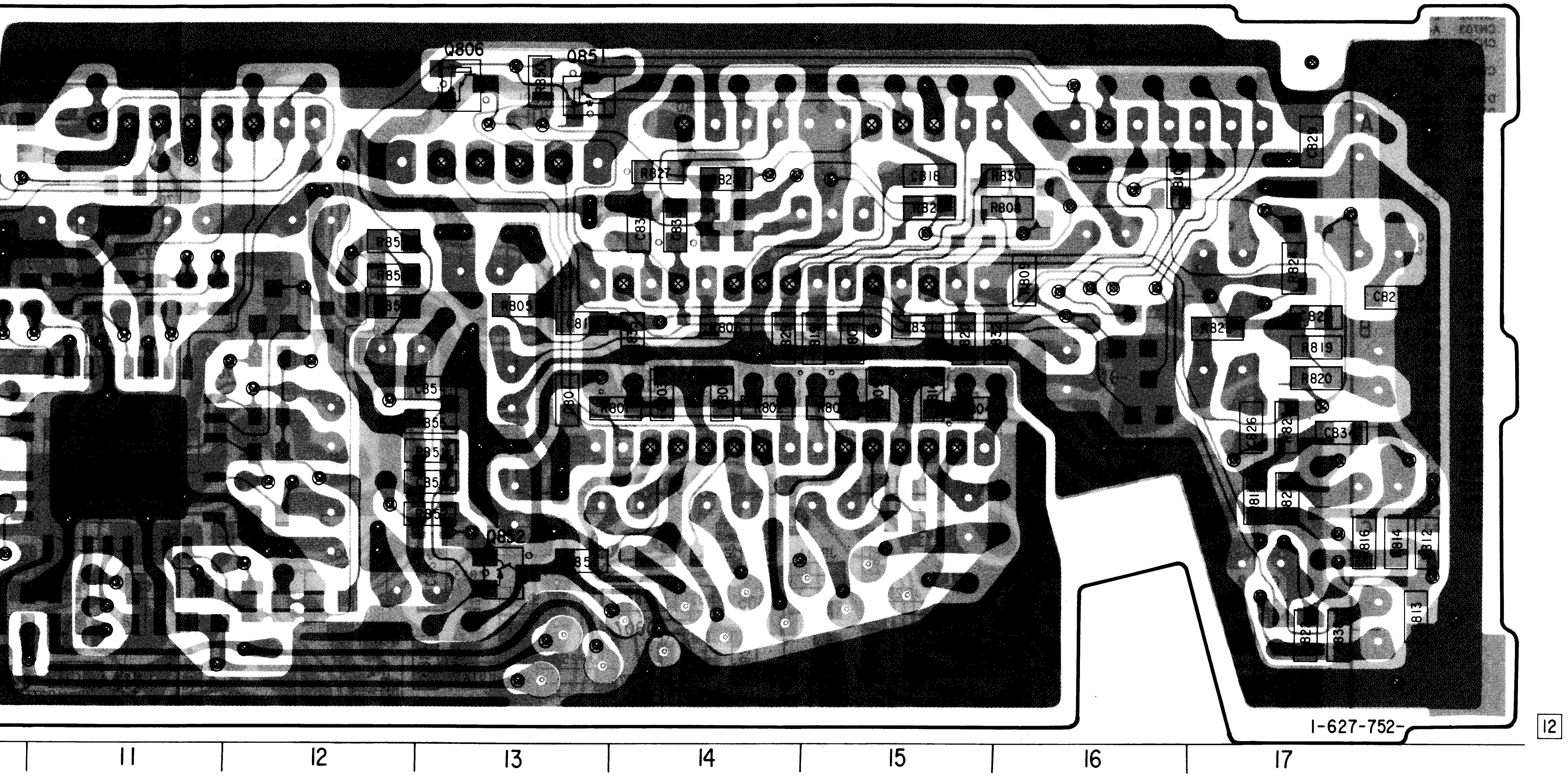


CN801	C-4
CN802	A-4
CN803	A-1
CN804	A-6
D801	B-2
D802	C-3
D803	B-3
IC801	B-4
Q801	C-1
Q802	C-2
Q803	A-2
Q804	B-2
Q806	A-13
Q850	A-5
Q851	A-13
Q852	C-13
Q853	B-6
Q854	B-6

RP-63 BOARD



RD (CONDUCTOR SIDE)


Q806
Q851
R827
C828
C818
R830
R808
R851
R805
C85
Q852
R829
C826
R819
R820
C834
C827
R816
R814
R812
R813
1-627-752-
12
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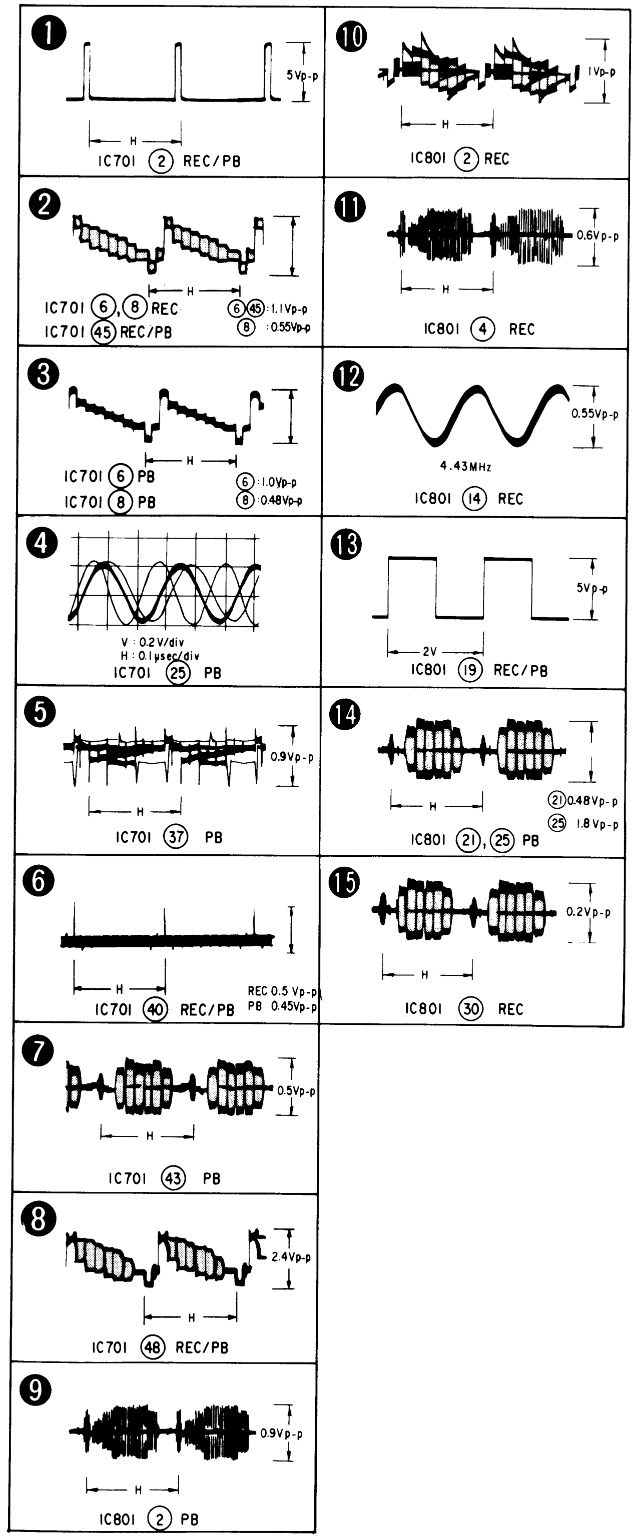
16
17

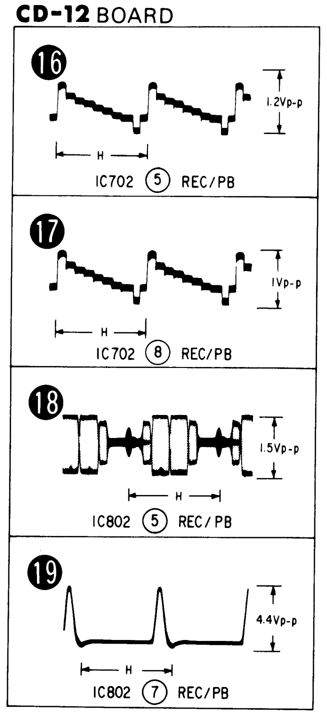
YC-55 (VIDEO SIGNAL PROCESS), CD-12(CCD) PRINTED WIRING BOARDS

—Ref. No. YC-55 BOARD : 2,000 series, CD-12 BOARD : 3,000 series—

YC-55 BOARD

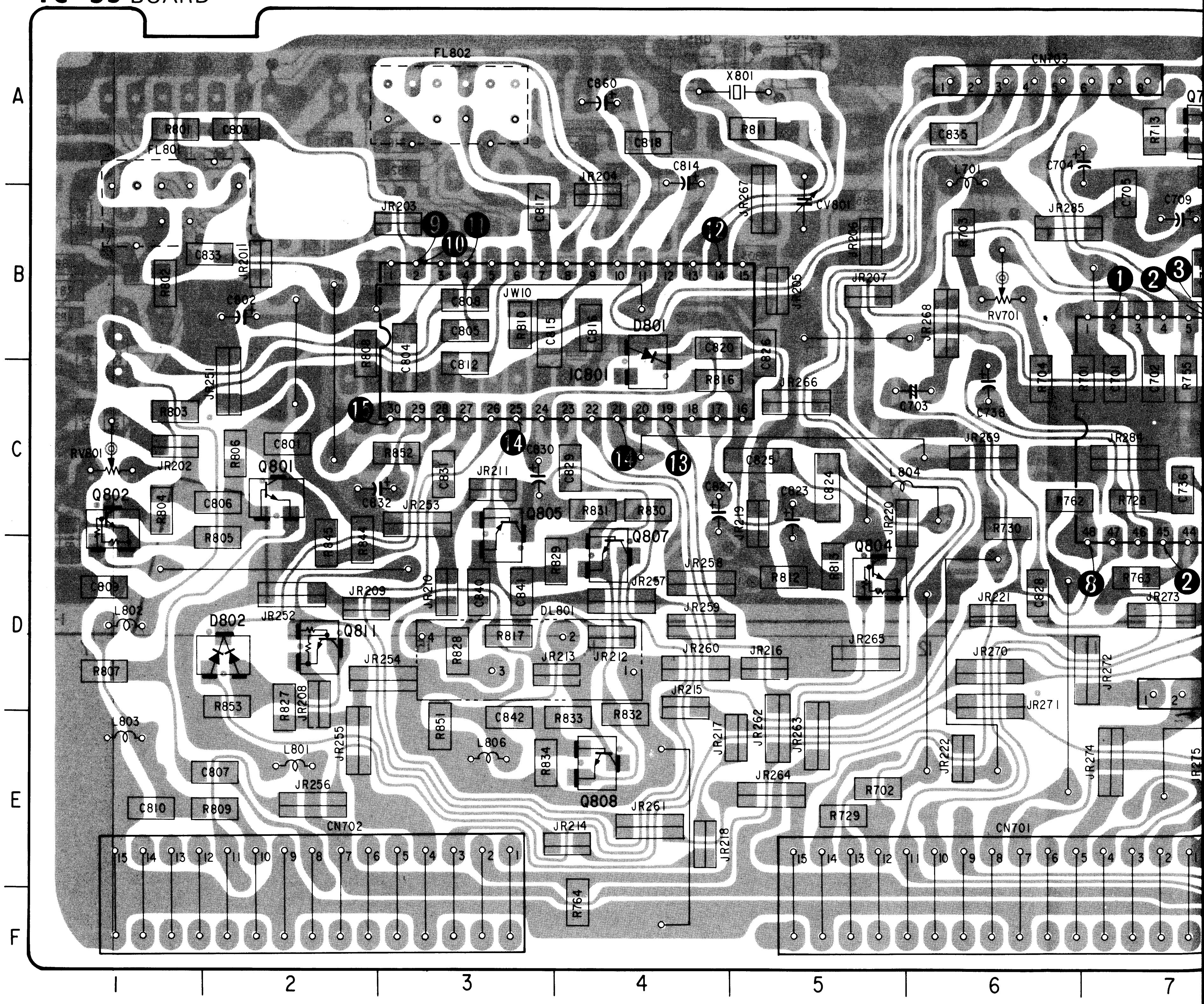


CD-12 BOARD



CN701	E-6
CN702	E-2
CN703	A-6
CN704	D-8
CV801	B-5
D701	D-9
D702	E-10
D705	D-8
D801	B-4
D802	D-2
IC701	C-8
IC801	C-4
Q702	A-7
Q703	E-10
Q704	D-10
Q721	F-8
Q722	D-8
Q723	E-10
Q801	C-2
Q802	C-1
Q804	D-5
Q805	C-3
Q807	D-4
Q808	E-4
Q811	D-2
RV701	B-6
RV702	B-10
RV703	B-10
RV704	C-10
RV705	C-10
RV707	A-8
RV708	D-10
RV710	E-8
RV801	C-2

YC-55 BOARD


A
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FL802
C860
X801
CN703
R801
C803
FL801
R811
C818
C814
JR204
C835
R713
C704
L701
C709
C705
JR285
JR203
C817
JR267
CV801
JR206
R703
C833
JR201
R802
C802
JW10
C808
C805
C812
R810
C815
C811
D801
C820
R816
C826
JR205
JR207
JR268
RV701
R808
C804
IC801
JR266
C703
C738
R704
R701
C710
C702
R735
JR251
R803
RV801
JR202
R806
C801
Q801
R852
C831
JR211
C830
C829
C825
C824
L804
JR269
JR286
C736
Q802
R804
C806
R805
C832
JR253
R845
R844
Q805
R831
R830
Q807
C827
JR219
C823
R814
JR220
Q804
R762
R728
R730
C809
JR209
JR210
C840
C841
R822
JR258
JR257
R812
R763
C828
JR221
JR273
L802
D802
JR252
Q811
DL801
R817
JR259
JR260
JR216
JR265
JR270
JR272
R807
JR254
R828
JR213
JR212
R853
R827
JR208
R851
C842
R833
R832
JR215
JR217
JR262
JR263
JR271
L803
JR255
L801
L806
R834
Q808
JR222
JR274
R275
C807
JR256
JR264
R702
C810
R809
CN702
JR214
JR261
JR218
R729
CN701
R764
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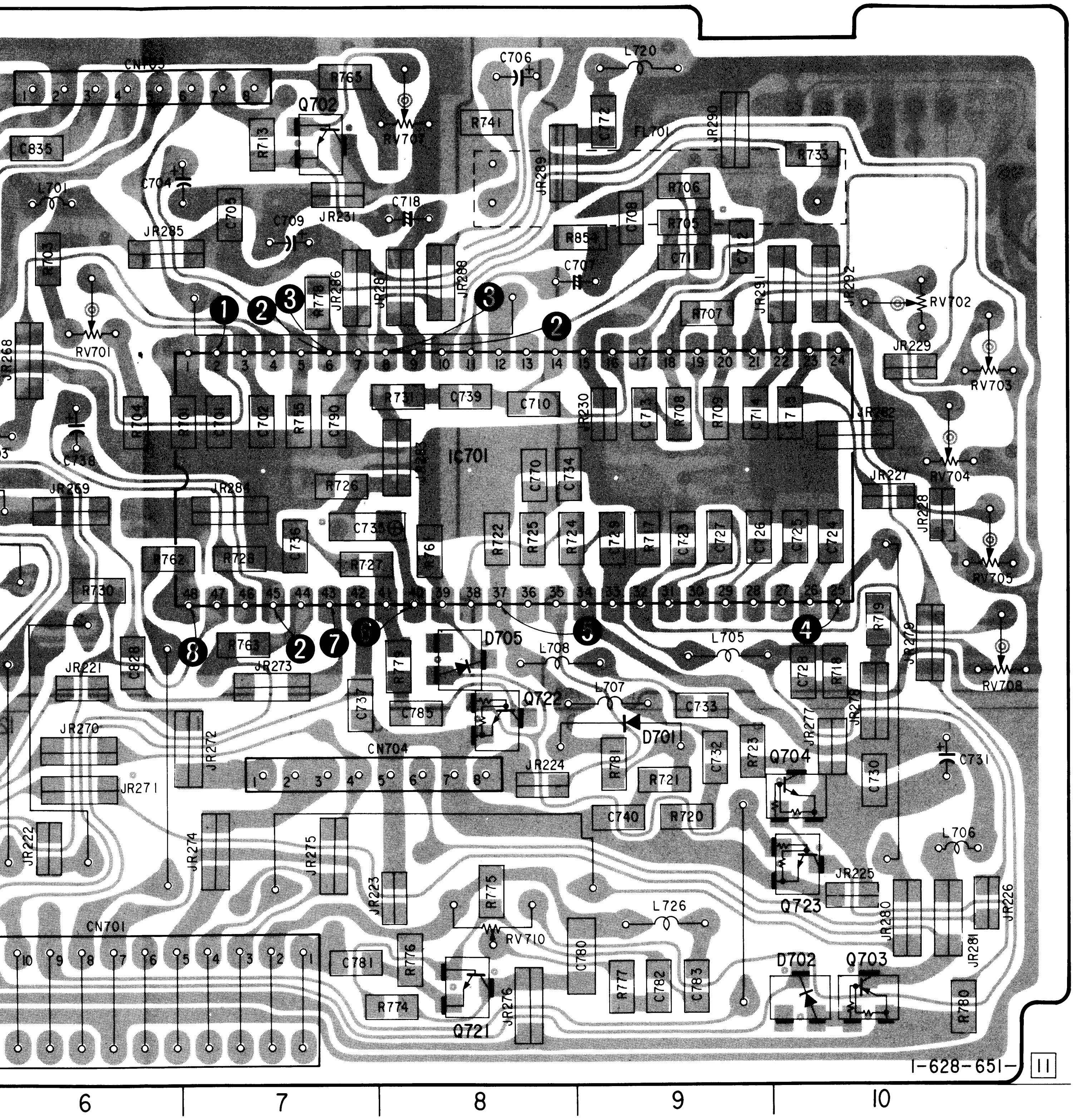
CN705
Q702
R765
RV707
R713
R741
C706
L720
C712
FL701
JR290
JR289
C733
C835
L701
C704
C703
C709
C718
JR231
R706
R705
C708
R852
C707
C711
JR285
R703
R778
JR286
JR287
JR288
JR291
JR292
RV702
RV701
JR268
R707
JR229
RV703
R704
R701
R702
R755
C790
R731
C739
C710
JR230
R708
R709
JR282
C738
IC701
C770
C734
R726
JR289
JR269
JR227
RV704
JR228
C735
R736
R722
R725
R724
R728
R723
R729
R726
C725
R763
R729
R727
RV705
R730
R719
JR279
D705
L708
L705
R762
JR273
C828
JR221
R717
C785
Q722
L707
C733
D701
C729
R718
JR277
RV708
C737
JR270
JR272
CN704
JR224
R781
R723
C732
Q704
C730
C731
JR271
R721
C740
R720
JR222
JR274
JR275
L706
Q723
JR225
JR223
R775
RV710
L726
JR280
JR281
JR226
CN701
C781
R776
C780
D702
Q703
R774
Q721
JR276
R777
C782
C783
R780
1-628-651- 11
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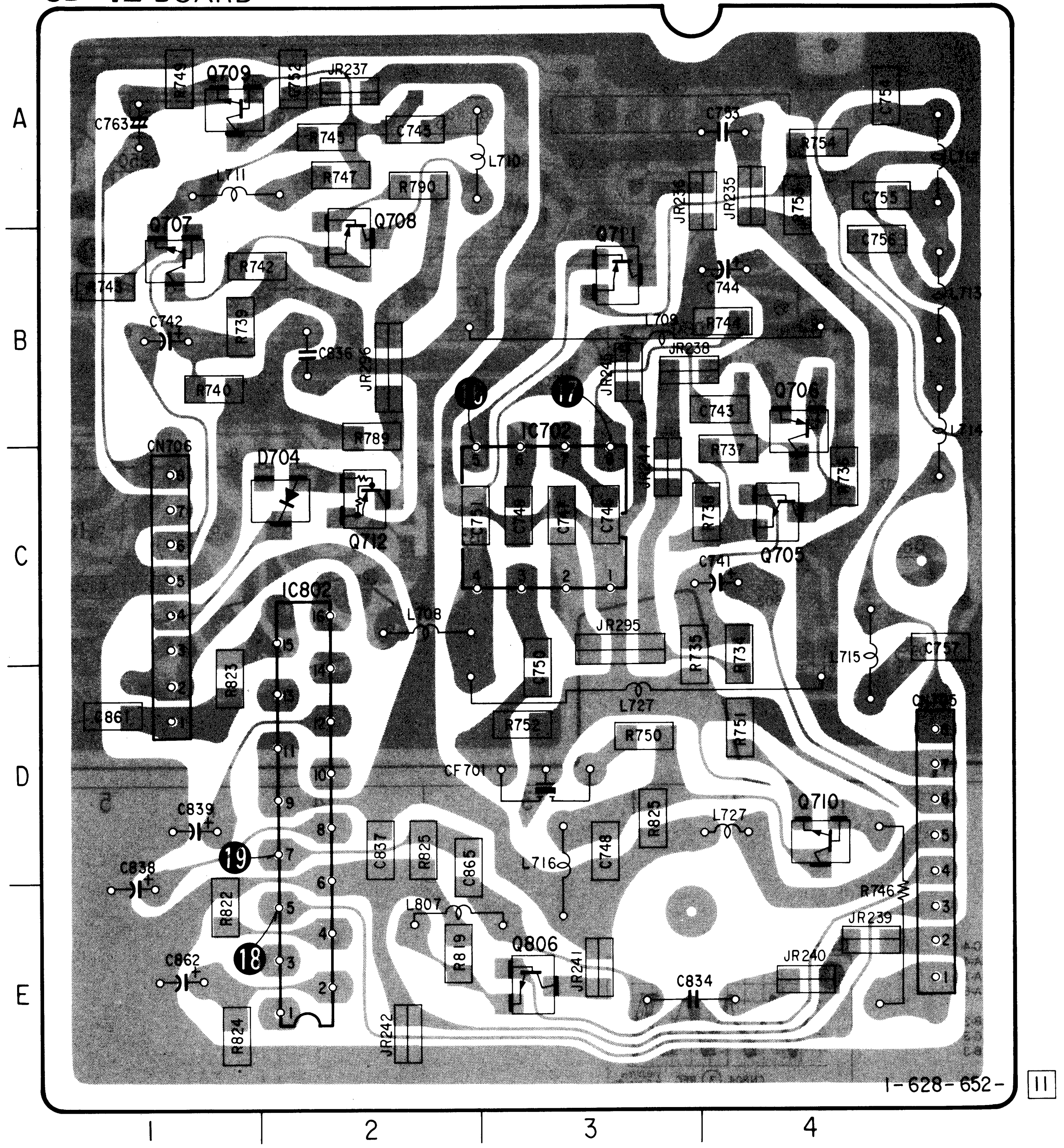
CD-12 BOARD

CN705	C-4
CN706	C-1
D704	C-2
IC702	C-3
IC802	C-2
Q705	C-4
Q706	B-4
Q707	B-1
Q708	B-2
Q709	A-1
Q710	D-4
Q711	B-3
Q712	C-2
Q806	E-3


A
B
C
D
E
R746
Q709
R712
JR237
C763
R745
C743
L710
C753
R754
C759
L711
R747
R790
JR235
C755
C756
Q707
Q708
Q711
R748
R742
C744
L713
C742
R739
C836
L709
R744
JR238
R740
R789
C743
Q706
CN706
D704
IC702
R737
Q712
R736
Q705
C741
L714
IC802
L708
JR295
R735
R734
L715
C757
R823
R861
R752
L727
R750
R751
CN705
CF701
C839
C838
C837
R825
C865
L716
C748
R825
L727
Q710
R746
R822
L807
R819
Q806
JR241
JR239
JR240
C862
C834
R824
JR242
1-628-652- 11
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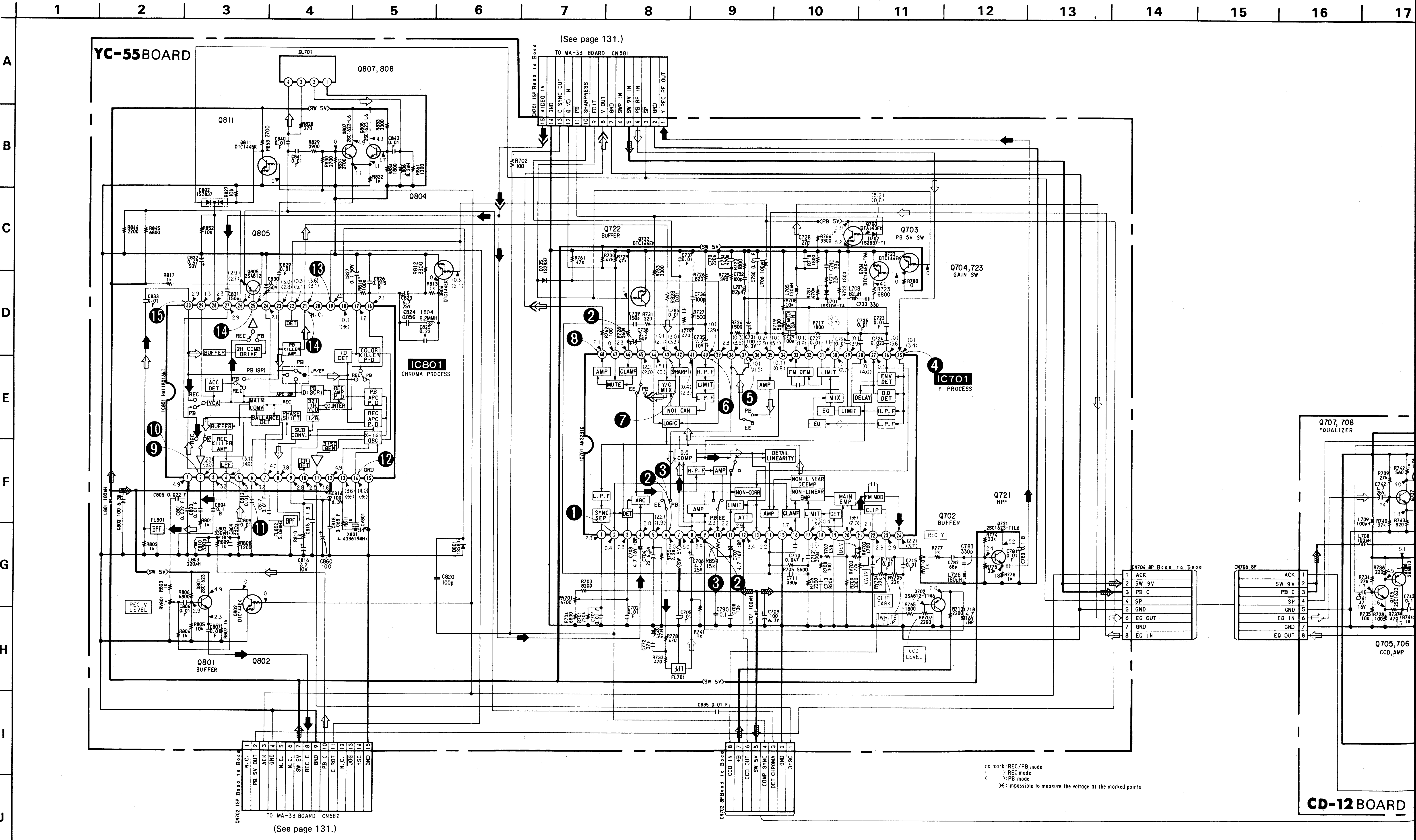
YC-55 (VIDEO SIGNAL PROCESS), CD-12(CCD) SCHEMATIC DIAGRAM

—Ref. No. YC-55 BOARD : 2,000 series, CD-12 BOARD : 3,000 series—



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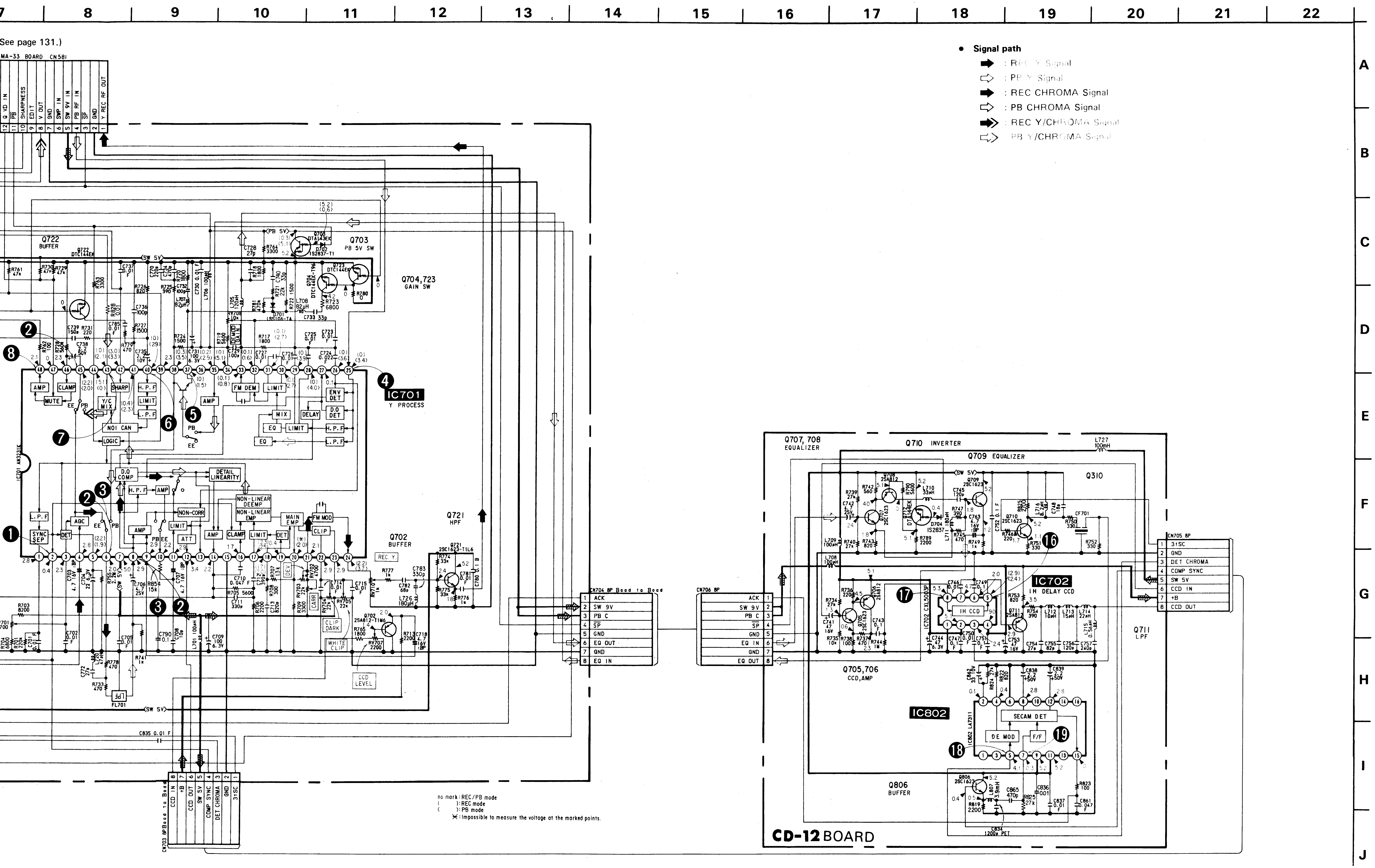
J
YC-55 BOARD
(See page 131.)
TO MA-33 BOARD CN581
CN701 15P Bood to Bood
VIDEO IN
GND
C SYNC OUT
Q VD IN
PB
SHARPNESS
EDIT
V OUT
GND
SWP IN
SW 9V IN
PB RF IN
SP
GND
Y REC RF OUT
DL701
Q807, 808
Q811
Q804
Q805
IC801
CHROMA PROCESS
IC801 HA11801ANT
BUFFER
2H COMB DRIVE
PB KILLER AMP
ID DET
COLOR KILLER P-D
ACC DET
VCA
MAIN CONV
BALLANCE DET
PHASE SHIFT
PB DISCRI
321 fH VCO
1/8
COUNTER
REC APC P.D
PB APC P.D
X-tal OSC
SUB CONV.
3FSC GEN
REC KILLER AMP
LPF
BPF
FL801
FL802
X801 4.433619MHz
REC V LEVEL
Q801 BUFFER
Q802
Q722 BUFFER
Q703 PB 5V SW
Q704,723 GAIN SW
IC701
Y PROCESS
IC701 AN3231K
AMP
CLAMP
MUTE
SHARP
H.P.F
LIMIT
L.P.F
Y/C MIX
NOI CAN
LOGIC
FM DEM
ENV DET
D.O DET
MIX
DELAY
EQ
D.O COMP
DETAIL LINEARITY
NON-LINEAR DEEMP
NON-LINEAR EMP
NON-CORR
MAIN EMP
FM MOD
CLIP
SYNC SEP
DET
AGC
ATT
Q702 BUFFER
Q721 HPF
REC Y
CLIP DARK
WHITE CLIP
CCD LEVEL
FL701
(SW 5V)
(PB 5V)
C835 0.01 F
C820 100p
CN702 15P Bood to Bood
N.C.
PB 5V OUT
ACK
GND
N.C.
N.C.
SW 5V
REC C
GND
PB C
C ROT
N.C.
JOG
fSC
GND
TO MA-33 BOARD CN582
(See page 131.)
CN703 8P Bood to Bood
CCD IN
+B
CCD OUT
SW 5V
COMP SYNC
DET CHROMA
GND
3fSC
CN704 8P Bood to Bood
ACK
SW 9V
PB C
SP
GND
EQ OUT
GND
EQ IN
CN706 8P
ACK
SW 9V
PB C
SP
GND
EQ IN
GND
EQ OUT
Q707, 708 EQUALIZER
Q705,706 CCD,AMP
CD-12 BOARD

no mark : REC/PB mode
( ) : REC mode
〈 〉 : PB mode
✳ : Impossible to measure the voltage at the marked points.

(See page 131.)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I
J
MA-33 BOARD CN581
12 Q VD IN
11 PB
10 SHARPNESS
9 EDIT
8 V OUT
7 GND
6 SWP IN
5 SW 9V IN
4 PB RF IN
3 SP
2 GND
1 Y REC RF OUT
Q722 BUFFER
Q722 DTC144EK
(SW 5V)
Q703 PB 5V SW
Q708 DTA143EK
D702 1S2837-T1
Q704 DTC144EK-T96
Q723 DTC144EK
Q704,723 GAIN SW
D701 1SS106-TA
IC701 Y PROCESS
IC701 AN3231K
AMP
CLAMP
MUTE
SHARP
Y/C MIX
H.P.F
LIMIT
L.P.F
NOI CAN
LOGIC
FM DEM
LIMIT
MIX
DELAY
ENV DET
D.O DET
EQ
H.P.F
L.P.F
D.O COMP
DETAIL LINEARITY
NON-CORR
NON-LINEAR DEEMP
NON-LINEAR EMP
MAIN EMP
FM MOD
CLIP
AGC
SYNC SEP
DET
ATT
H.P.F
REC Y
Q702 BUFFER
Q702 2SA812-T1M6
Q721 HPF
Q721 2SC1623-T1L6
CLIP DARK
WHITE CLIP
CCD LEVEL
LPF FL701
(SW 5V)
C835 0.01 F
CN704 8P Board to Board
1 ACK
2 SW 9V
3 PB C
4 SP
5 GND
6 EQ OUT
7 GND
8 EQ IN
CN703 8P Board to Board
8 CCD IN
7 +B
6 CCD OUT
5 SW 5V
4 COMP SYNC
3 DET CHROMA
2 GND
1 3.58SC
CN706 8P
ACK 1
SW 9V 2
PB C 3
SP 4
GND 5
EQ IN 6
GND 7
EQ OUT 8
Q707,708 EQUALIZER
Q710 INVERTER
Q709 EQUALIZER
L727 100mH
Q310
Q706 2SA812
Q707 2SC1623
Q712 DTC144EK
D704 1S2837
Q709 2SC1623
Q710 2SC1623
CF701
CN705 8P
1 3.58SC
2 GND
3 DET CHROMA
4 COMP SYNC
5 SW 5V
6 CCD IN
7 +B
8 CCD OUT
IC702 1H DELAY CCD
IC702 CXL5003P
1H CCD
Q711 2SA812
Q711 LPF
Q705,706 CCD,AMP
Q705 2SC1623
IC802
IC802 LA7311
SECAM DET
DE MOD
F/F
Q806 BUFFER
Q806 2SC1623
CD-12 BOARD

- **Signal path**
  - ➡ : REC Y Signal
  - ⇨ : PB Y Signal
  - ➡ : REC CHROMA Signal
  - ⇨ : PB CHROMA Signal
  - ➡ : REC Y/CHROMA Signal
  - ⇨ : PB Y/CHROMA Signal

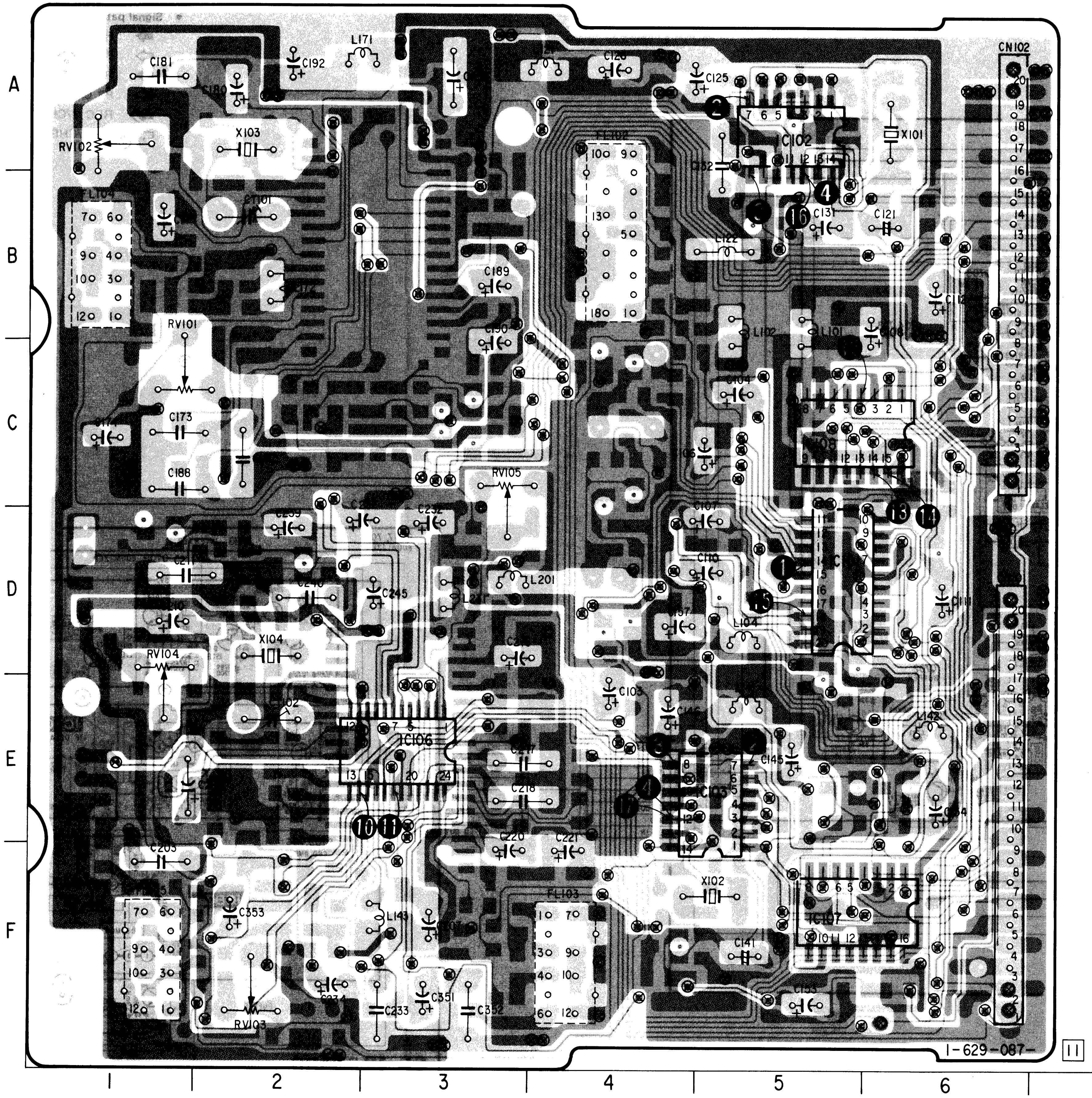
no mark : REC/PB mode
( ) : REC mode
( ) : PB mode
✕ : Impossible to measure the voltage at the marked points.

DA-12 (DIGITAL INTERFACE) PRINTED WIRING BOARD

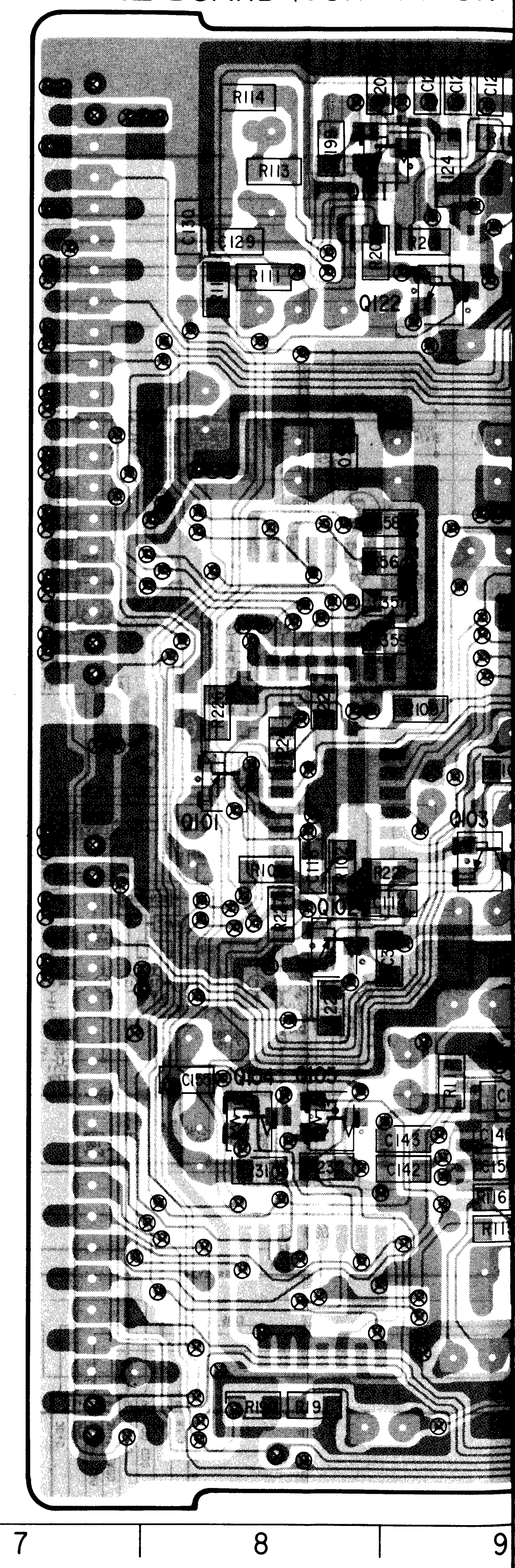
—Ref. No. DA-12 BOARD ; 4,000 series—

CN101	D-6
CN102	A-6
CT101	B-2
TC102	E-2
IC101	D-5
IC102	A-5
IC103	E-5
IC104	B-11
IC105	E-11
IC106	E-3
IC107	F-5
IC108	C-5
Q101	D-8
Q102	D-8
Q103	D-9
Q104	E-8
Q105	E-8
Q121	A-9
Q122	B-9
Q144	F-9
Q171	C-11
Q172	C-11
Q232	D-12
Q233	D-12
RV101	B-1
RV102	A-1
RV103	F-2
RV104	D-1
RV105	C-3

DA-12 BOARD (COMPONENT SIDE)


A
B
C
D
E
F
1
2
3
4
5
6
CN102
C181
C192
L171
C125
C180
X103
X101
RV102
IC102
C131
C121
CT101
C122
C189
RV101
L102
L101
C106
C104
C173
IC108
C188
RV105
C239
C232
C107
C110
C211
C240
C245
L201
C111
L104
X104
RV104
C103
L142
IC106
C217
C218
C145
IC103
C203
C220
C221
X102
C353
L143
FL103
IC107
C141
C234
C233
C351
C352
RV103
1-629-087-
11

DA-12 BOARD (CONDUCTOR

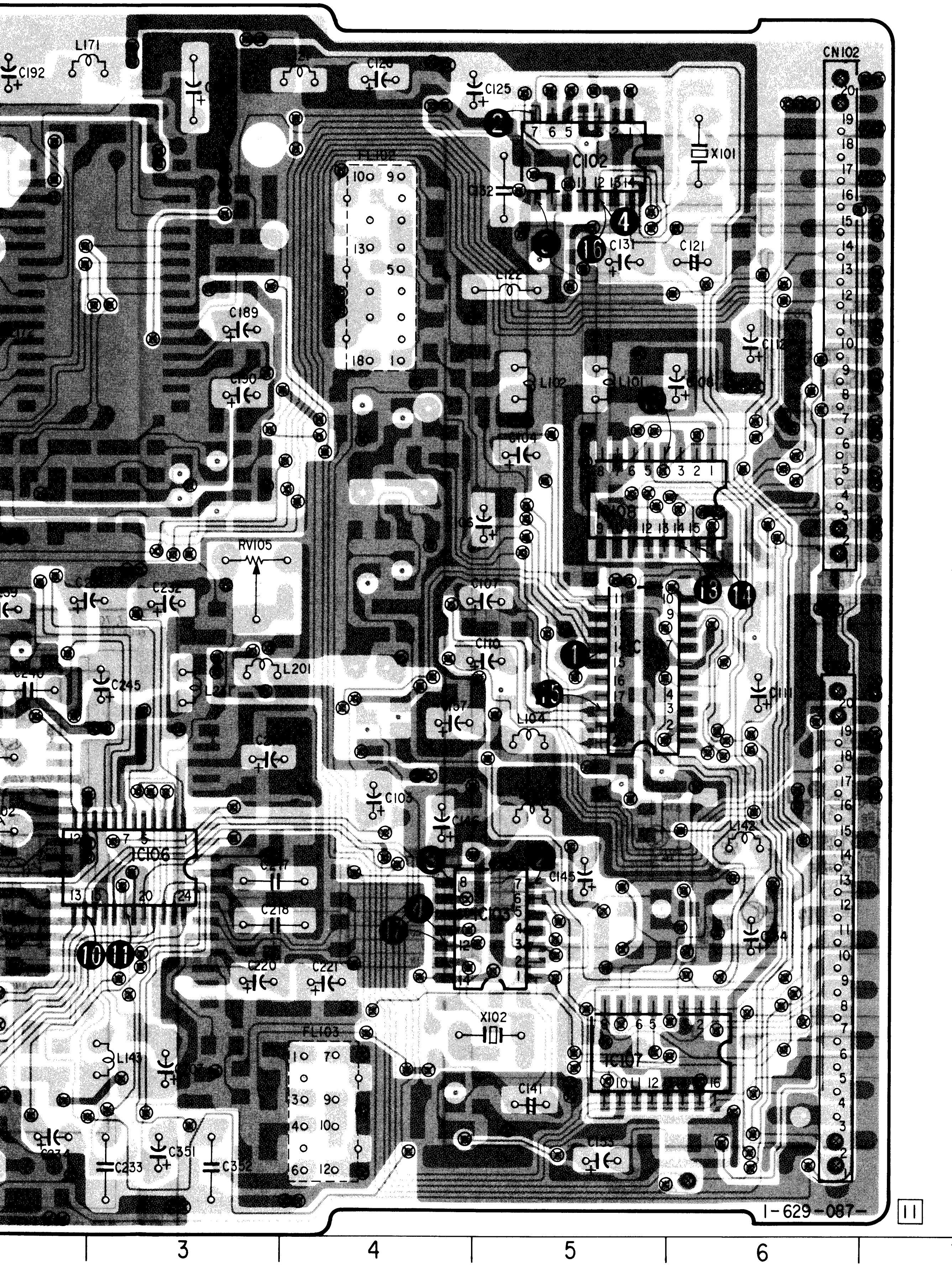

7
8
9
R114
R113
R111
C129
Q122
Q101
Q103
C145
C142

DIGITAL(1)

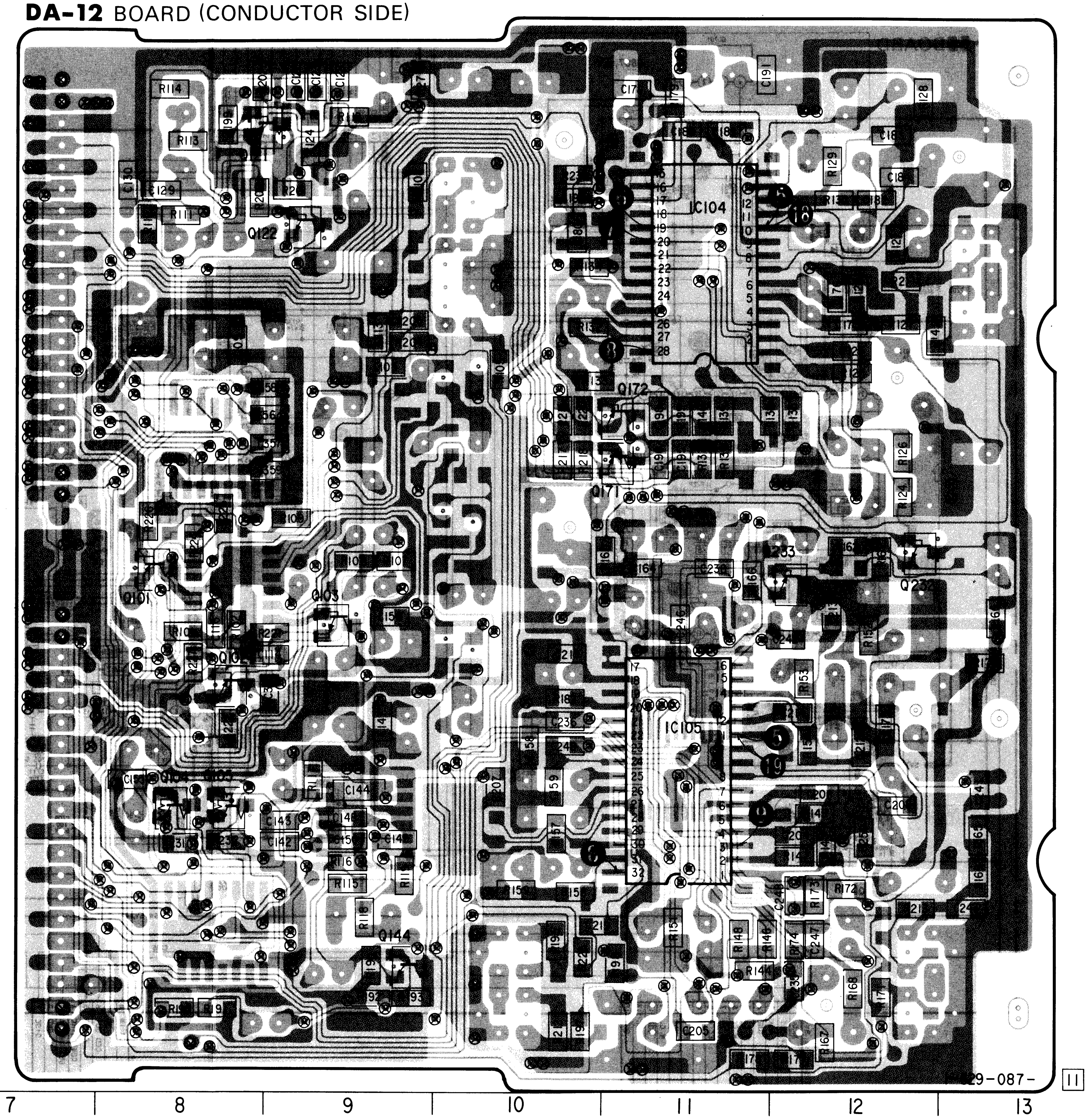
DIGITAL(1)

DIGITAL(

ONENT SIDE)


CN102
IC102
IC103
IC106
IC107
X101
X102
RV105
FL103
L171
L122
L101
L102
L104
L142
L201
C192
C125
C121
C131
C189
C190
C232
C245
C217
C218
C220
C221
C233
C351
C352
C141
C145
1-629-087-
11
3
4
5
6

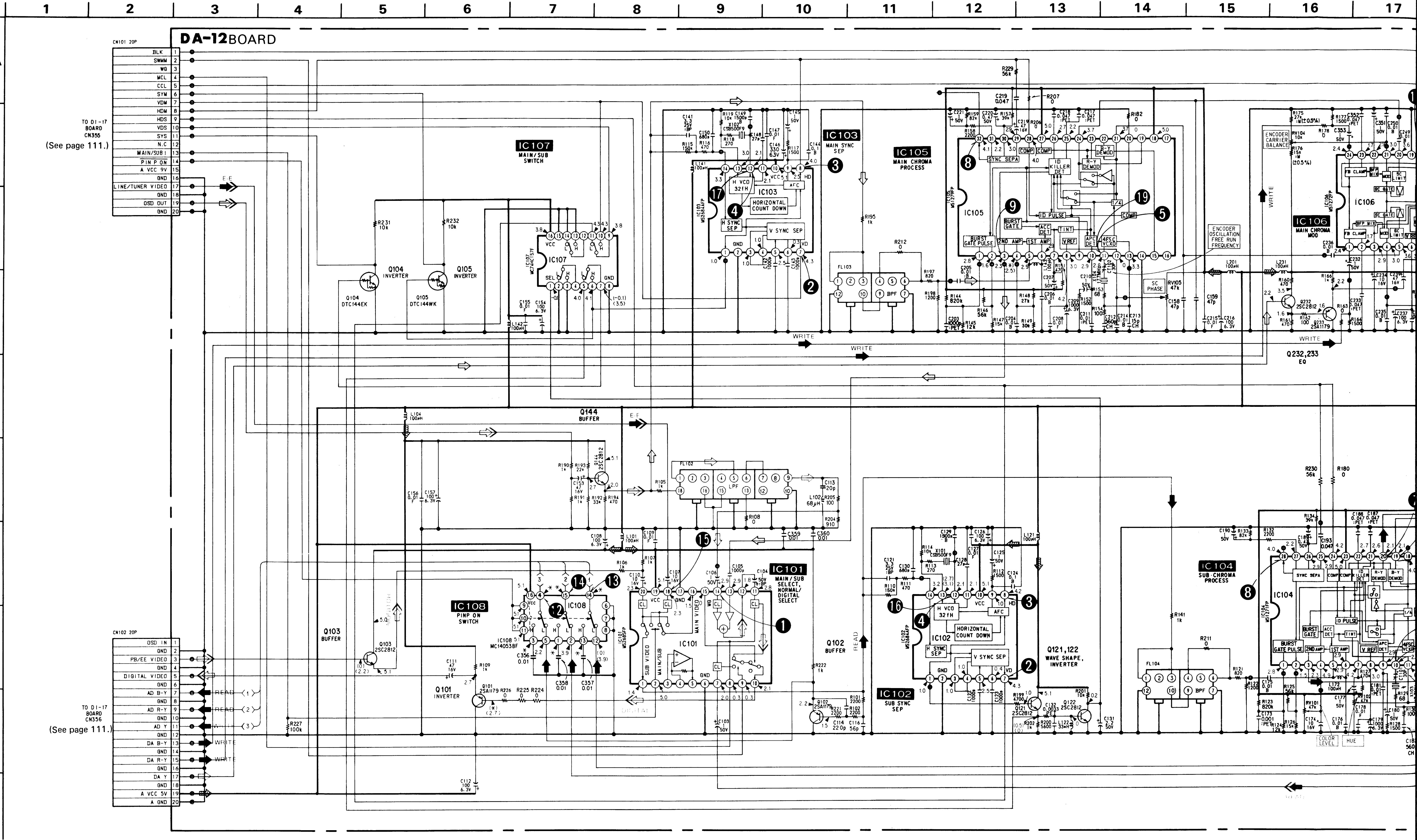
DA-12 BOARD (CONDUCTOR SIDE)

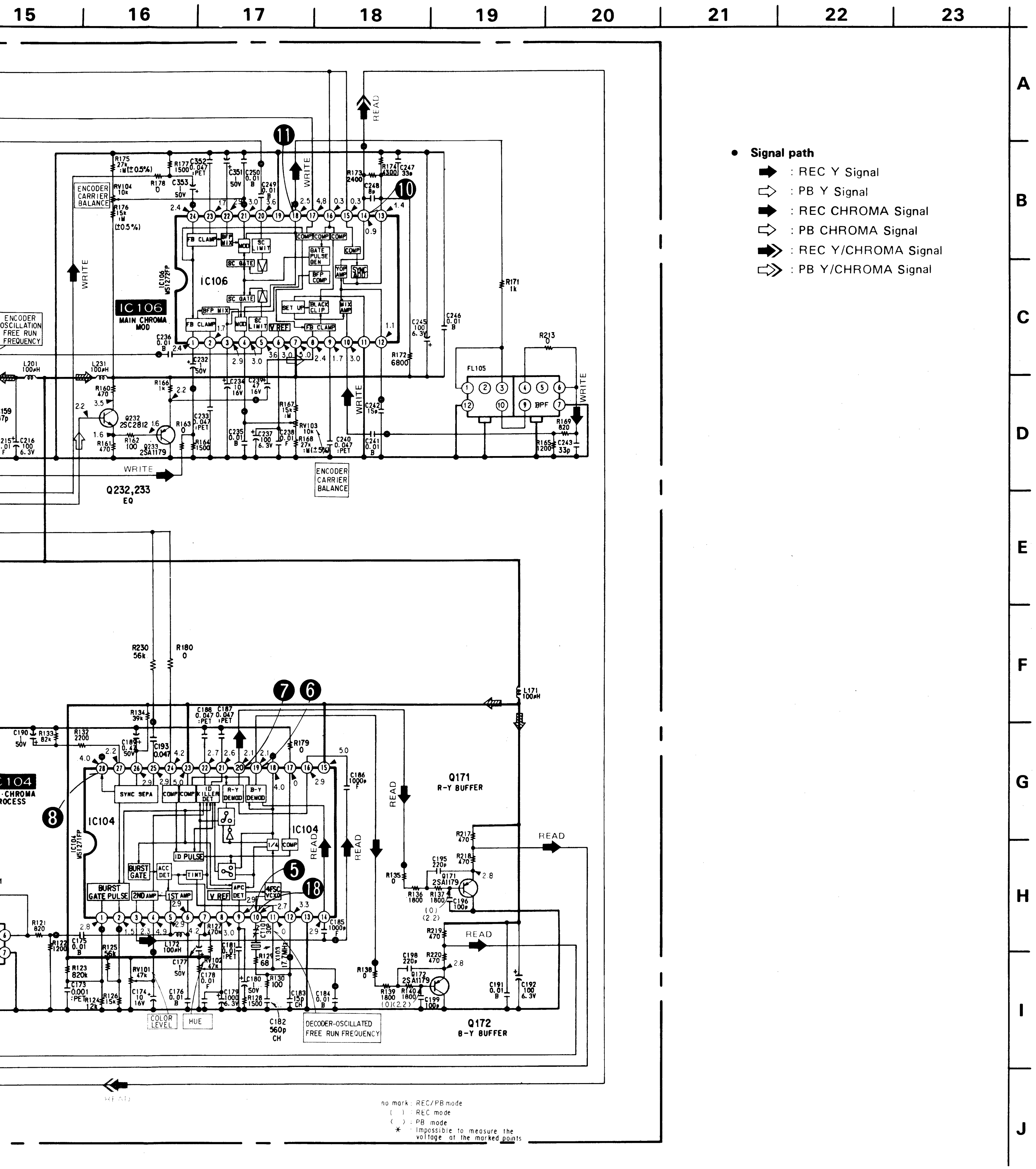

IC104
IC105
Q122
Q172
Q171
Q101
Q103
Q144
Q232
R114
R113
R111
C129
C144
C143
C142
R115
R168
-629-087-
11
7
8
9
10
11
12
13

DIGITAL(1) DIGITAL(1)

DA-12 (DIGITAL INTERFACE) SCHEMATIC DIAGRAM

—Ref. No. DA-12 BOARD ; 4,000 series—

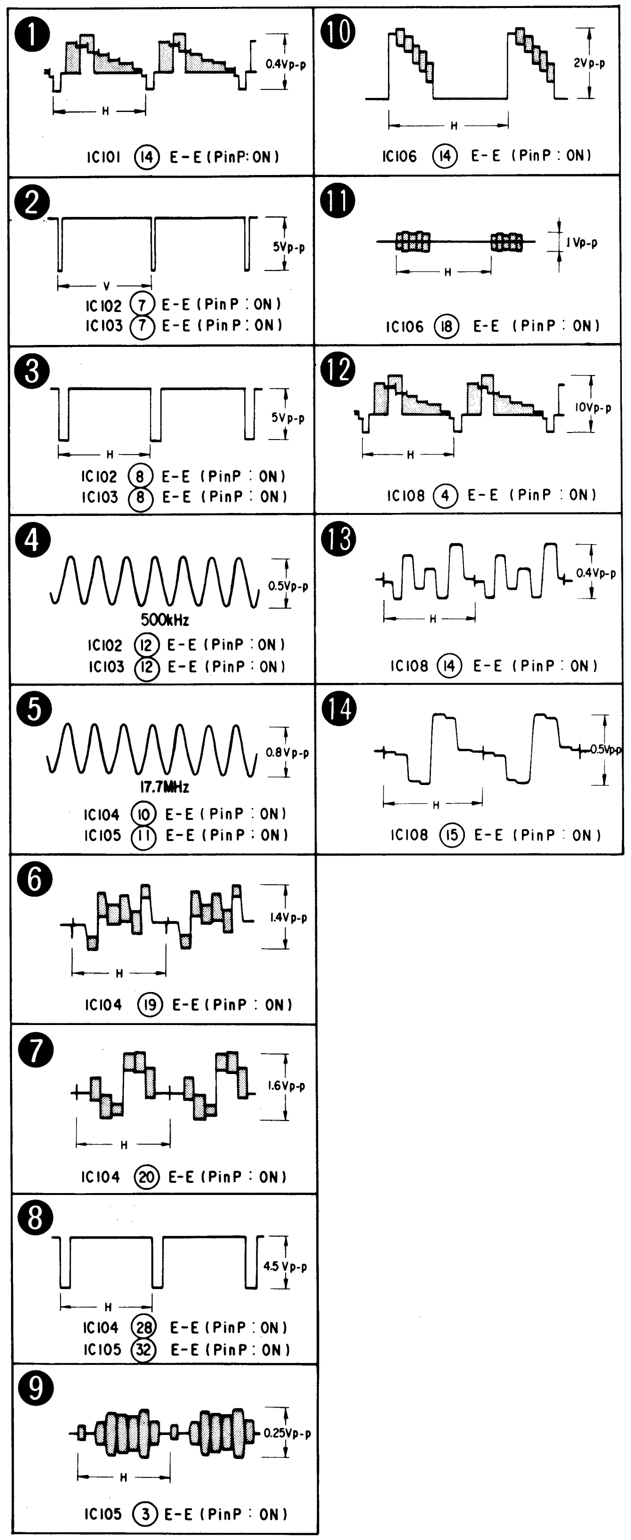

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
DA-12BOARD
CN101 20P
BLK
SWMM
WG
MCL
CCL
SYM
VDM
HDM
HDS
VDS
SYS
N.C
MAIN/SUB1
PIN P ON
A VCC 9V
GND
LINE/TUNER VIDEO
GND
OSD OUT
GND
TO DI-17 BOARD CN355
(See page 111.)
E-E
IC107
MAIN/SUB SWITCH
IC107 MC74HC157F
R231 10k
R232 10k
Q104 INVERTER
Q105 INVERTER
Q104 DTC144EK
Q105 DTC144WK
IC103
MAIN SYNC SEP
IC103 M52684FP
H VCO 32fH
HORIZONTAL COUNT DOWN
H SYNC SEP
V SYNC SEP
AFC
IC105
MAIN CHROMA PROCESS
IC105 M51279FP
SYNC SEPA
COMP
ID KILLER DET
R-Y DEMOD
B-Y DEMOD
ID PULSE
BURST GATE
ACC DET
TINT
BURST GATE PULSE
2ND AMP
1ST AMP
V REF
APC DET
4FSC VCXO
FL103
BPF
WRITE
SC PHASE
ENCODER OSCILLATION FREE RUN FREQUENCY
ENCODER CARRIER BALANCE
IC106
MAIN CHROMA MOD
IC106 M51278FP
FB CLAMP
BFP MIX
SC LIMIT
Q232 2SC2812
Q233 2SA1179
Q232,233 EQ
Q144 BUFFER
Q144 2SC2812
FL102
LPF
IC101
MAIN/SUB SELECT, NORMAL/DIGITAL SELECT
IC101 M52685FP
MAIN/SUB
SUB VIDEO
MAIN VIDEO
IC108
PINP ON SWITCH
IC108 MC14053BF
Q103 BUFFER
Q103 2SC2812
Q101 INVERTER
Q101 2SA1179
Q102 BUFFER
Q102 2SA1179
READ
IC102
SUB SYNC SEP
IC102 M52684FP
Q121,122 WAVE SHAPE, INVERTER
Q121 2SC2812
Q122 2SC2812
FL104
IC104
SUB CHROMA PROCESS
IC104 M51279FP
COLOR LEVEL
HUE
CN102 20P
OSD IN
GND
PB/EE VIDEO
GND
DIGITAL VIDEO
GND
AD B-Y
GND
AD R-Y
GND
AD Y
GND
DA B-Y
GND
DA R-Y
GND
DA Y
GND
A VCC 5V
A GND
TO DI-17 BOARD CN356
(See page 111.)


15
16
17
18
19
20
21
22
23
A
B
C
D
E
F
G
H
I
J
IC106
MAIN CHROMA MOD
IC104
CHROMA PROCESS
ENCODER CARRIER BALANCE
ENCODER OSCILLATION FREE RUN FREQUENCY
Q232,233 EQ
FL105
BPF
Q171 R-Y BUFFER
Q172 B-Y BUFFER
COLOR LEVEL
HUE
DECODER-OSCILLATED FREE RUN FREQUENCY
READ
WRITE
SYNC SEPA
BURST GATE
BURST GATE PULSE
ID PULSE
KILLER DET
R-Y DEMOD
B-Y DEMOD
FB CLAMP
BFP MIX
SC LIMIT
GATE PULSE GEN
BLACK CLIP
MIX AMP
V REF

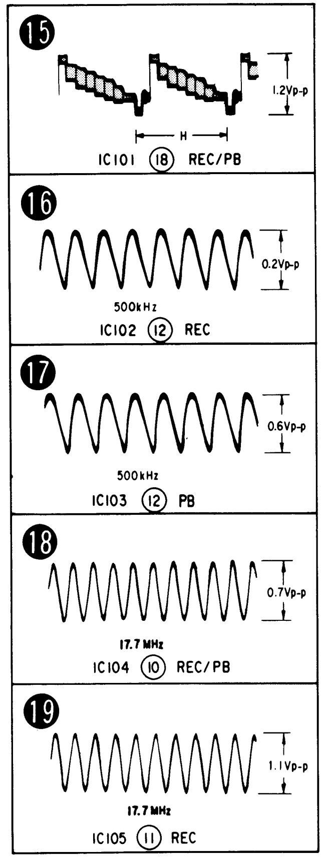
- **Signal path**
  - ➡ : REC Y Signal
  - ⇨ : PB Y Signal
  - ➡ : REC CHROMA Signal
  - ⇨ : PB CHROMA Signal
  - ➡ : REC Y/CHROMA Signal
  - ⇨ : PB Y/CHROMA Signal

no mark : REC/PB mode
( ) : REC mode
⟨ ⟩ : PB mode
* : Impossible to measure the voltage at the marked points

DA-12 BOARD (REMOTE CONTROL PinP:ON)



DA-12 BOARD

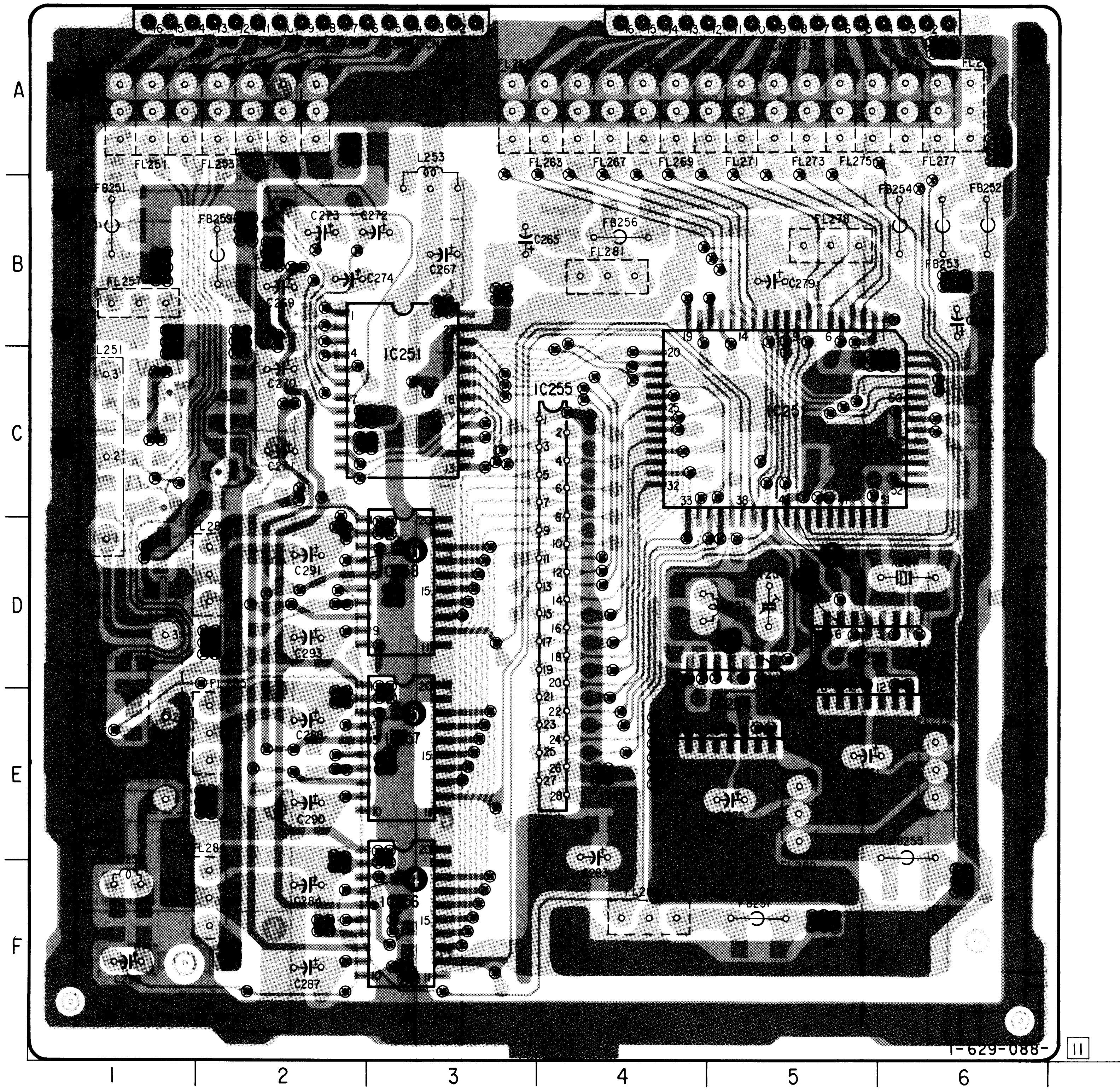


DB-3 (DIGITAL MEMORY), DI-17(RELAY) PRINTED WIRING BOARDS

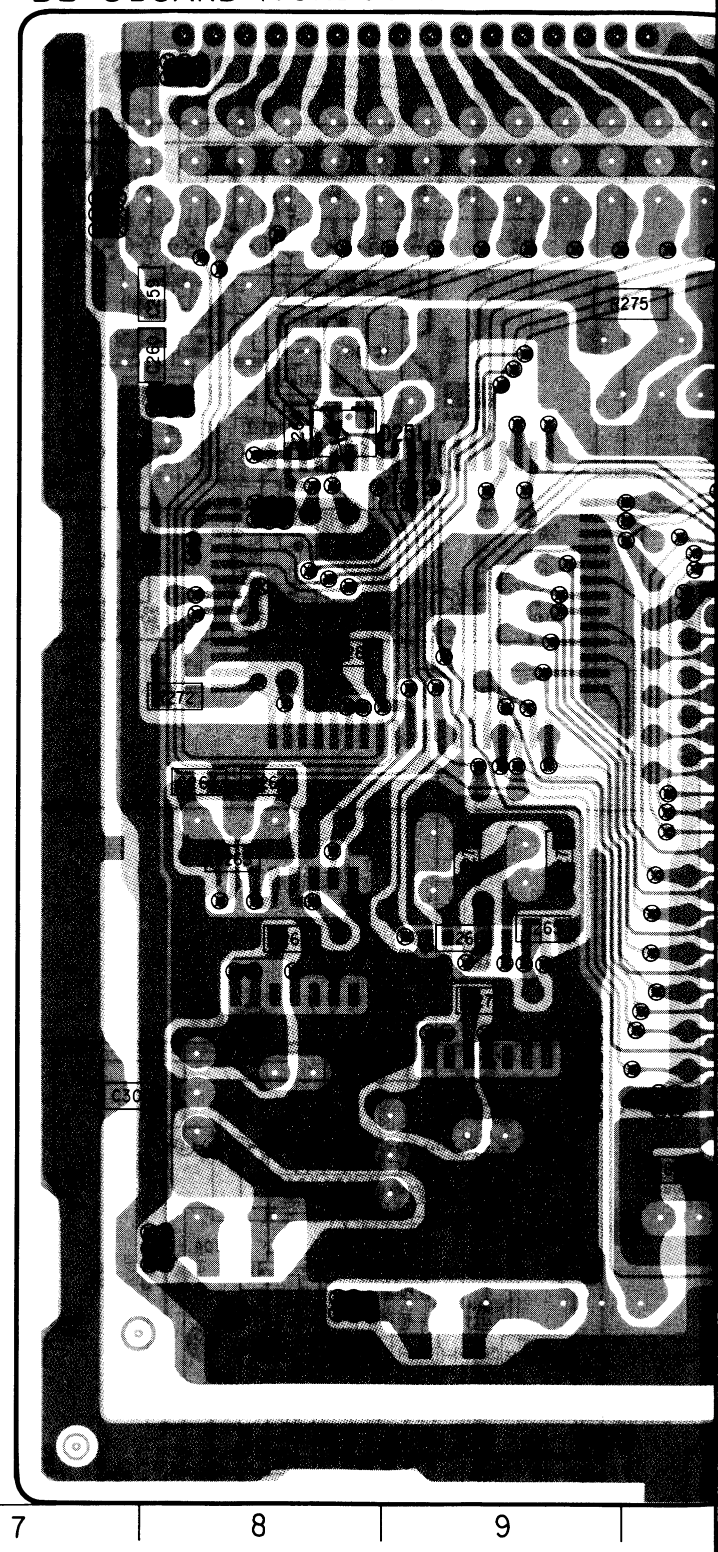
—Ref. No. DB-3 and DI-17 BOARDS : 5,000 series—

CN251	A-5
CN252	A-3
CV251	D-5
D251	B-8
IC251	C-3
IC252	C-5
IC253	D-5
IC254	E-5
IC255	C-4
IC256	F-3
IC257	E-3
IC258	D-3
Q251	C-12
Q252	C-12
Q253	C-12
Q254	B-11

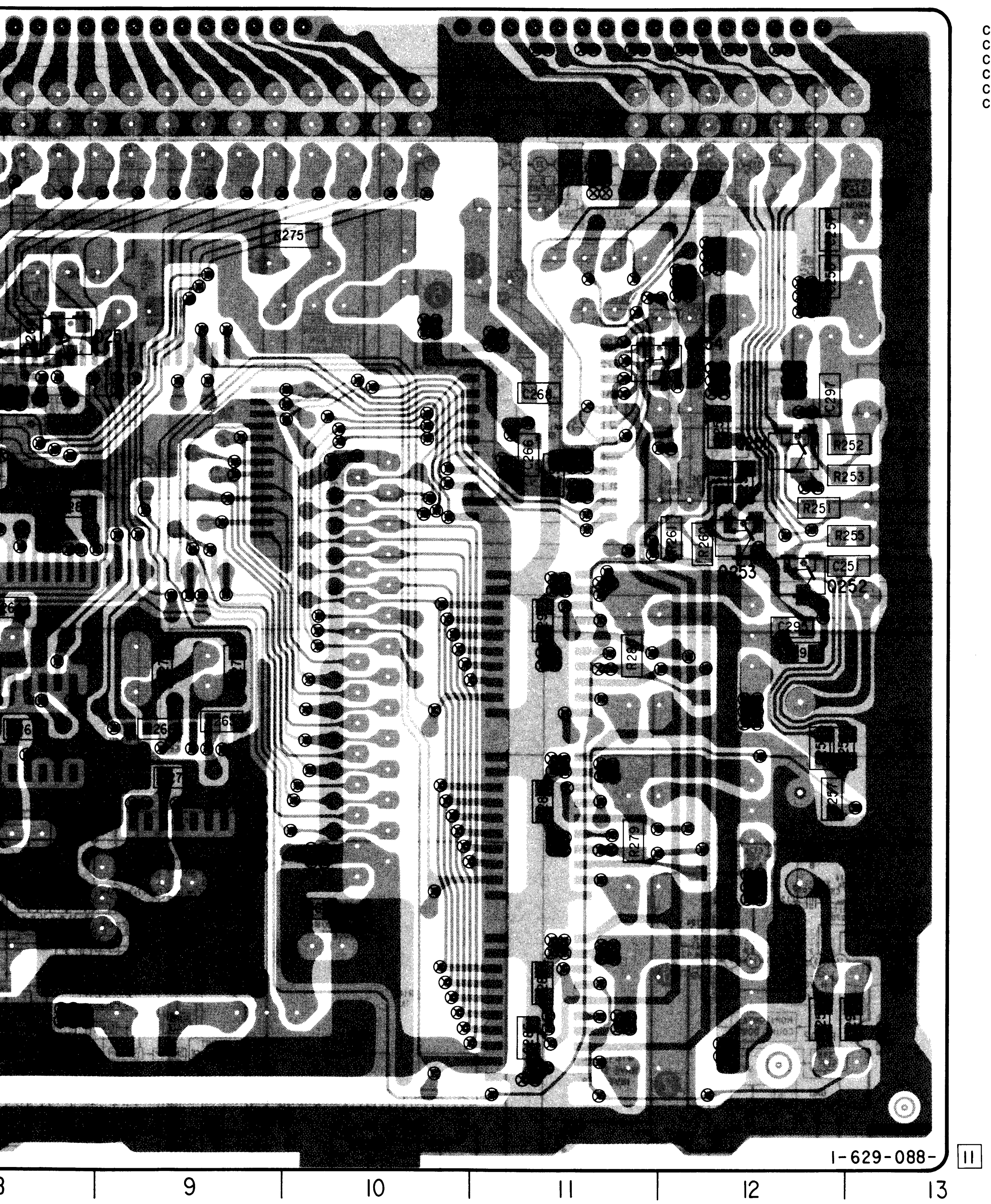
DB-3 BOARD (COMPONENT SIDE)


A
B
C
D
E
F
1
2
3
4
5
6
7
FL251
FL253
FL255
L253
FL263
FL267
FL269
FL271
FL273
FL275
FL277
FB251
FB259
C273
C272
C265
FB256
FL281
FL278
FB254
FB252
FB253
C267
C274
C269
C279
FL257
IC251
IC255
C270
L251
C271
C291
C293
C288
C290
C284
C287
FB255
1-629-088-11

DB-3 BOARD (CONDUCTOR SIDE)



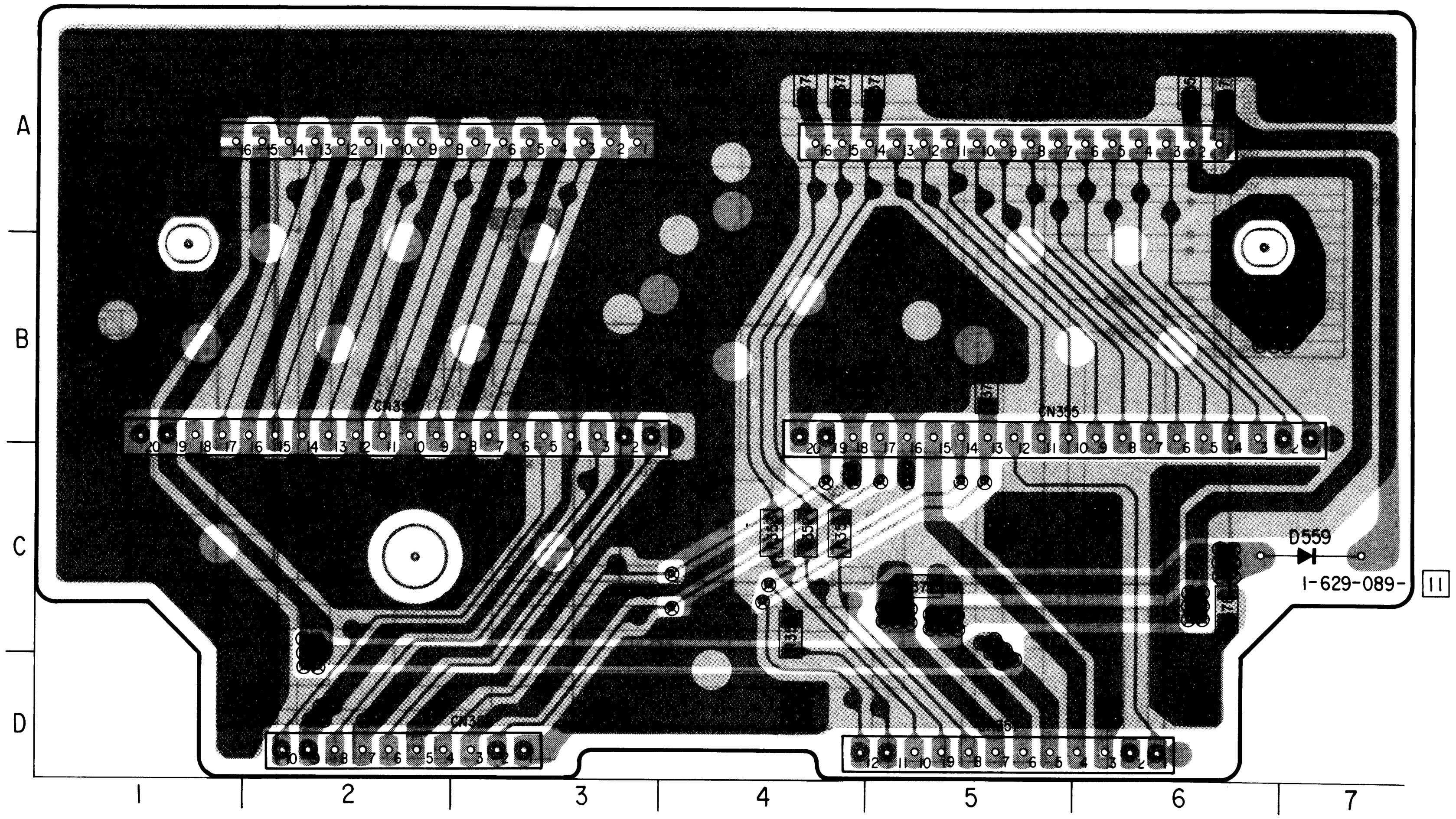
(CONDUCTOR SIDE)



R275
R264
R252
R253
R251
R255
C251
Q252
Q253
1-629-088- 11
8
9
10
11
12
13

DI-17 BOARD

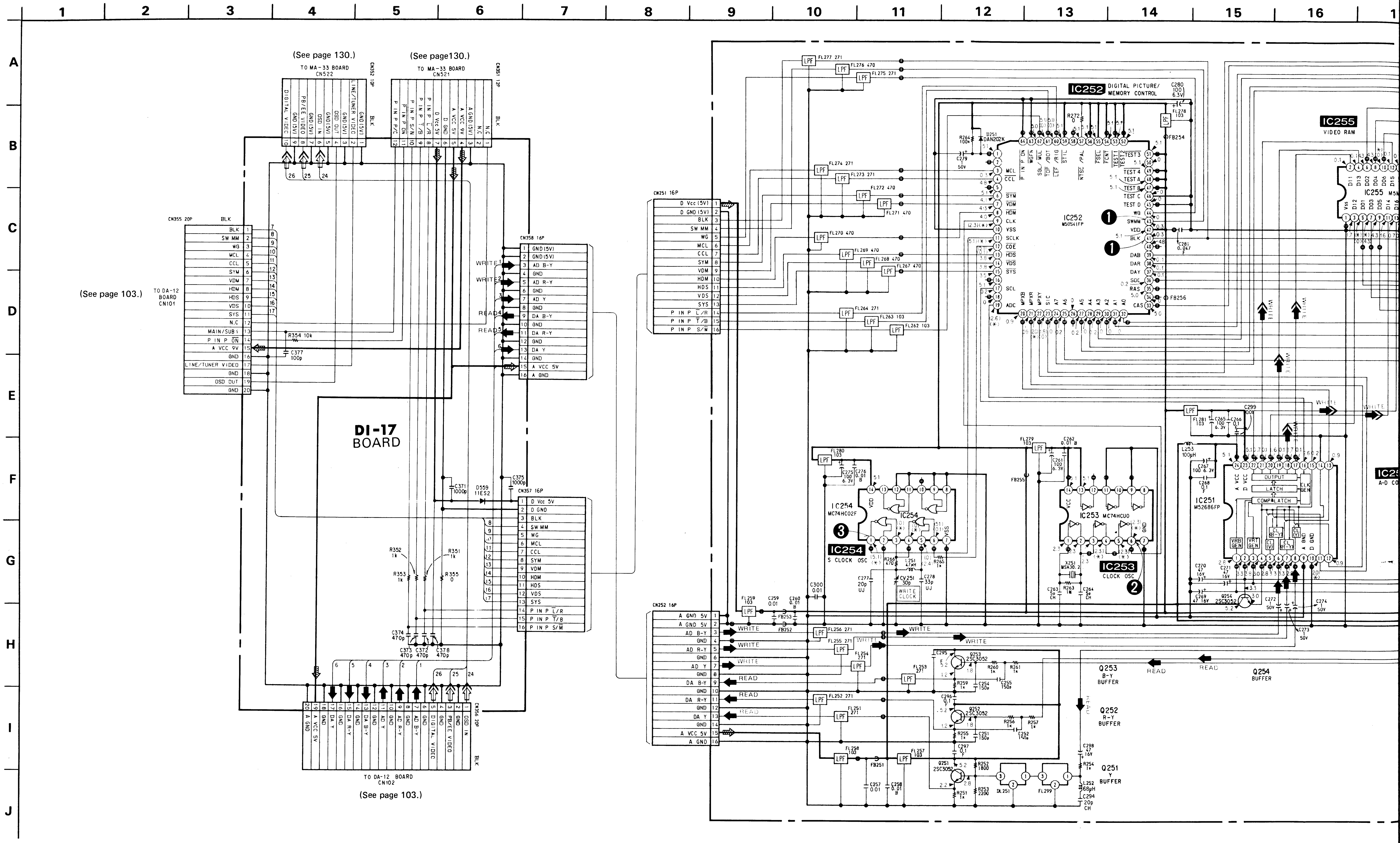
CN351	D-5
CN352	D-3
CN355	B-5
CN356	B-2
CN357	A-5
CN358	A-2



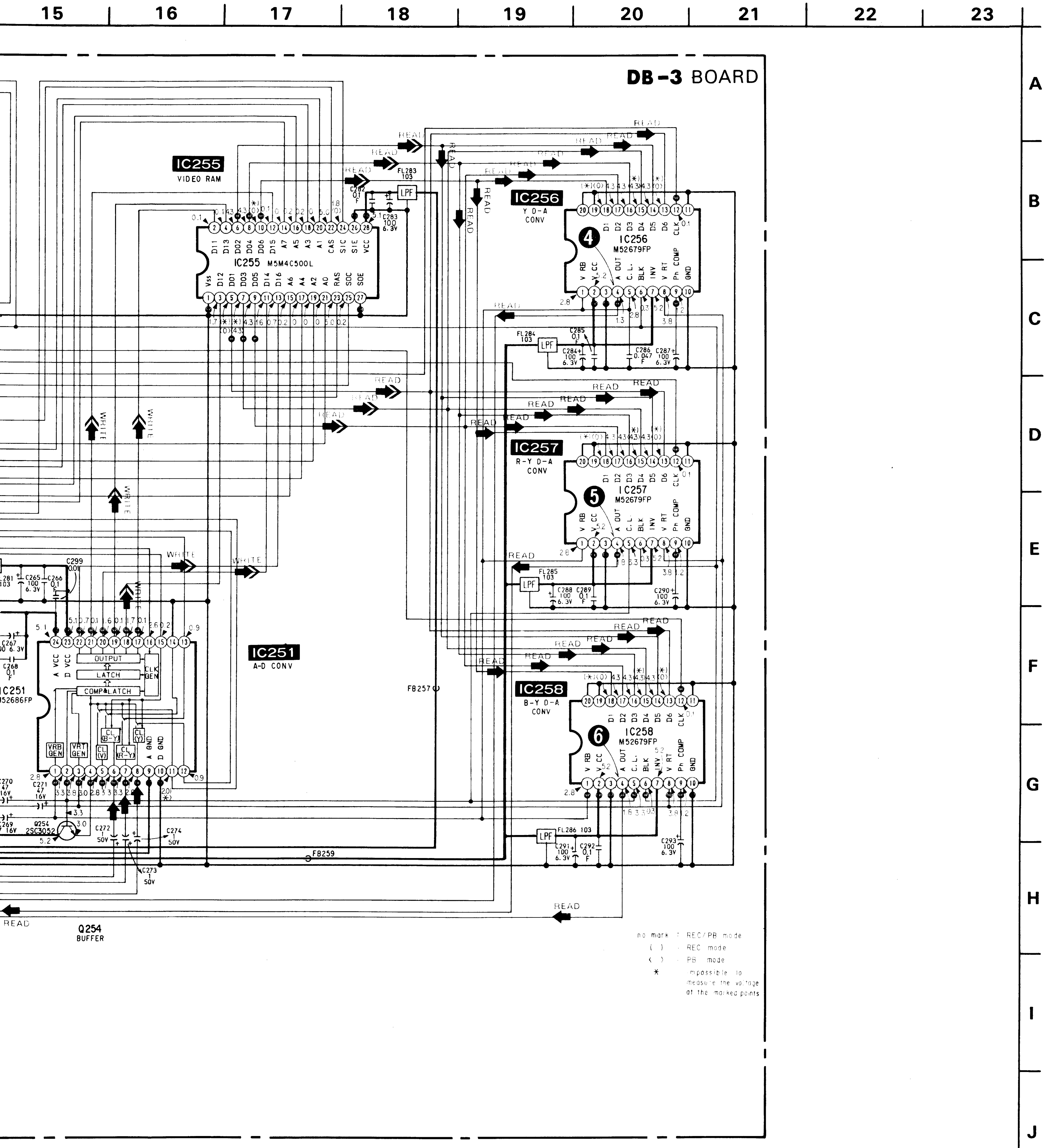
A
B
C
D
CN355
D559
1-629-089- 11
1
2
3
4
5
6
7

DB-3 (DIGITAL MEMORY), DI-17(RELAY) SCHEMATIC DIAGRAM

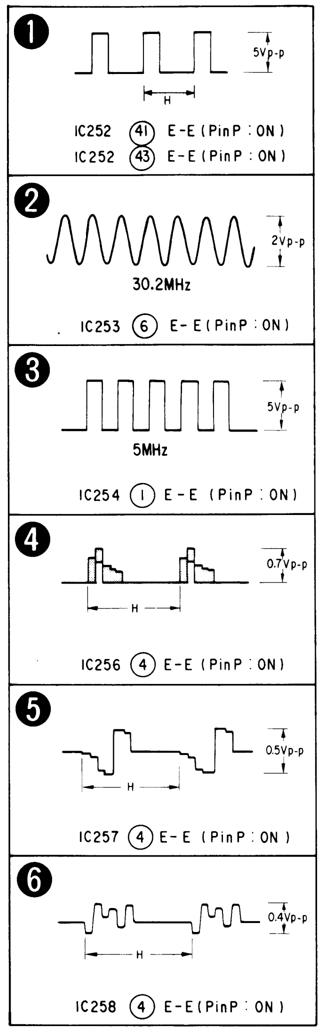
—Ref. No. DB-3 and DI-17 BOARDS : 5,000 series—



1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
A
B
C
D
E
F
G
H
I
J
(See page 130.)
TO MA-33 BOARD CN522
CN352 10P
(See page130.)
TO MA-33 BOARD CN521
CN351 12P
DIGITAL VIDEO
GND (5V)
PB/EE VIDEO
GND (5V)
GND (5V)
OSD OUT
OSD IN
GND (5V)
LINE/TUNER VIDEO
GND (5V)
BLK
P IN P P/C
P IN P ON
P IN P S/N
P IN P T/B
P IN P L/R
D Vcc 5V
D GND
A VCC 9V
A GND (5V)
N.C
CN355 20P
(See page 103.)
TO DA-12 BOARD CN101
SW MM
WG
MCL
CCL
SYM
VDM
HDM
HDS
VDS
SYS
N.C
MAIN/SUB
P IN P ON
A VCC 9V
GND
LINE/TUNER VIDEO
OSD OUT
R354 10k
C377 100p
CN358 16P
WRITE1
WRITE2
READ4
READ5
GND (5V)
AD B-Y
AD R-Y
AD Y
DA B-Y
DA R-Y
DA Y
A VCC 5V
A GND
DI-17 BOARD
C371 1000p
D559 11ES2
C375 1000p
CN357 16P
D Vcc 5V
D GND
P IN P L/R
P IN P T/B
P IN P S/M
R352 1k
R351 1k
R353 1k
R355 0
C374 470p
C373 470p
C372 470p
C378 470p
CN356 20P
TO DA-12 BOARD CN102
(See page 103.)
CN251 16P
CN252 16P
LPF
FL277 271
FL276 470
FL275 271
FL274 271
FL273 271
FL272 470
FL271 470
FL270 470
FL269 470
FL268 470
FL267 470
FL264 271
FL263 103
FL262 103
IC252 DIGITAL PICTURE/ MEMORY CONTROL
C280 100 6.3V
FL278 103
FB254
R272 0
R264 100k
D251 DAN202K
C279 1 50V
IC252 M50541FP
TEST3
TEST4
TEST A
TEST B
TEST C
TEST D
SWMM
VDD
DAB
DAR
DAY
SOC
RAS
CAS
C281 0.047 F
FB256
IC255 VIDEO RAM
IC255 M5M
WRITE
READ
FL279 103
C262 0.01 B
C261 100 6.3V
FB255
FL280 103
C275 100 6.3V
C276 0.01 B
IC254 MC74HC02F
IC254 S CLOCK OSC
R266 470
L251 47µH
CV251 30p
C277 20p UJ
C278 33p UJ
R265 1k
WRITE CLOCK
IC253 MC74HCU0
IC253 CLOCK OSC
X251 MSA30.2
C263 5p CH
R263 1M
C264 5p CH
FL281 103
C265 100 6.3V
C266 0.1
C299 100
L253 100µH
C267 100 6.3V
C268 0.1 F
IC251 M52686FP
OUTPUT
LATCH
COMP LATCH
CLK GEN
VRB GEN
VRT GEN
C270 47 16V
C271 47 16V
C269 47 16V
Q254 2SC3052
C272 1 50V
C274 1 50V
C273 1 50V
A-D CO
FL259 103
C259 0.01
C260 0.01 B
FB253
FB252
C300 0.01
A GND 5V
FL256 271
FL255 271
FL254 271
FL253 271
C295
Q253 2SC3052
R260 1k
R261 1k
R259 1k
C254 150p
C255 150p
Q253 B-Y BUFFER
Q254 BUFFER
FL252 271
FL251 271
C296 0.1
Q252 2SC3052
R256 1k
R257 1k
R255 1k
C251 150p
C252 150p
Q252 R-Y BUFFER
FL258 103
FB251
FL257 103
C297 0.1
C298 47 16V
R254 1k
Q251 2SC3052
R252 1800
R253 2200
R251 1k
C257 0.01
C258 0.01 B
DL251
FL299
L252 68µH
C294 20p CH
Q251 Y BUFFER


15
16
17
18
19
20
21
22
23
A
B
C
D
E
F
G
H
I
J
DB-3 BOARD
IC255
VIDEO RAM
IC255 M5M4C500L
IC256
Y D-A CONV
IC256 M52679FP
IC257
R-Y D-A CONV
IC257 M52679FP
IC258
B-Y D-A CONV
IC258 M52679FP
IC251
A-D CONV
IC251 M52686FP
Q254 BUFFER
READ
WRITE
LPF
FL283 103
FL284 103
FL285 103
FL286 103
FB257
FB259
OUTPUT
LATCH
COMP LATCH
CLK GEN
VRB GEN
VRT GEN
no mark : REC/PB mode
( ) : REC mode
⟨ ⟩ : PB mode
* : impossible to measure the voltage at the marked points

DB-3 BOARD (REMOTE CONTROL P IN P:ON)


❶
5Vp-p
H
IC252 (41) E-E (PinP : ON)
IC252 (43) E-E (PinP : ON)
❷
2Vp-p
30.2MHz
IC253 (6) E-E (PinP : ON)
❸
5Vp-p
5MHz
IC254 (1) E-E (PinP : ON)
❹
0.7Vp-p
H
IC256 (4) E-E (PinP : ON)
❺
0.5Vp-p
H
IC257 (4) E-E (PinP : ON)
❻
0.4Vp-p
H
IC258 (4) E-E (PinP : ON)

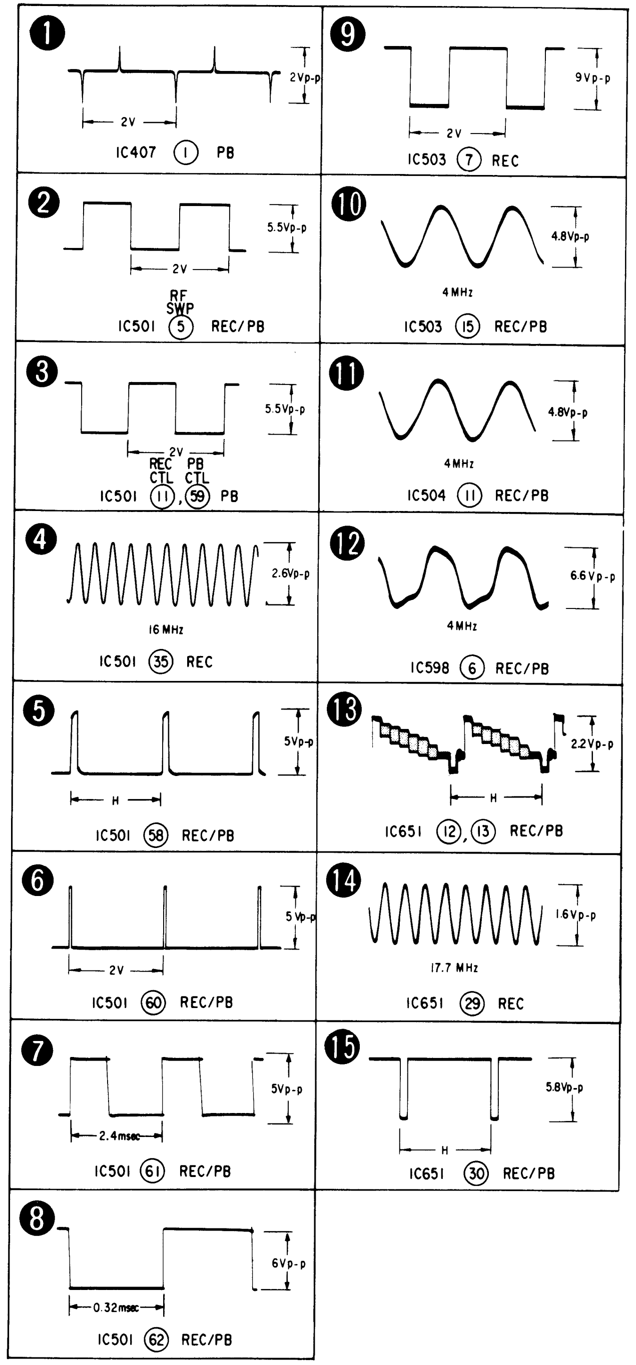
- **Signal path**

➡ : REC Y Signal
➡ : REC CHROMA Signal
⇛ : REC Y/CHROMA Signal
⇨ : PB Y/CHROMA Signal

MA-33(SERVO, SYSTEM CONTROL), TR-32(CAPSTAN MOTOR DRIVE), SENSOR SCHEMATIC DIAGRAM

—Ref. No. MA-33 and TR-32 BOARDS : 6,000 series—

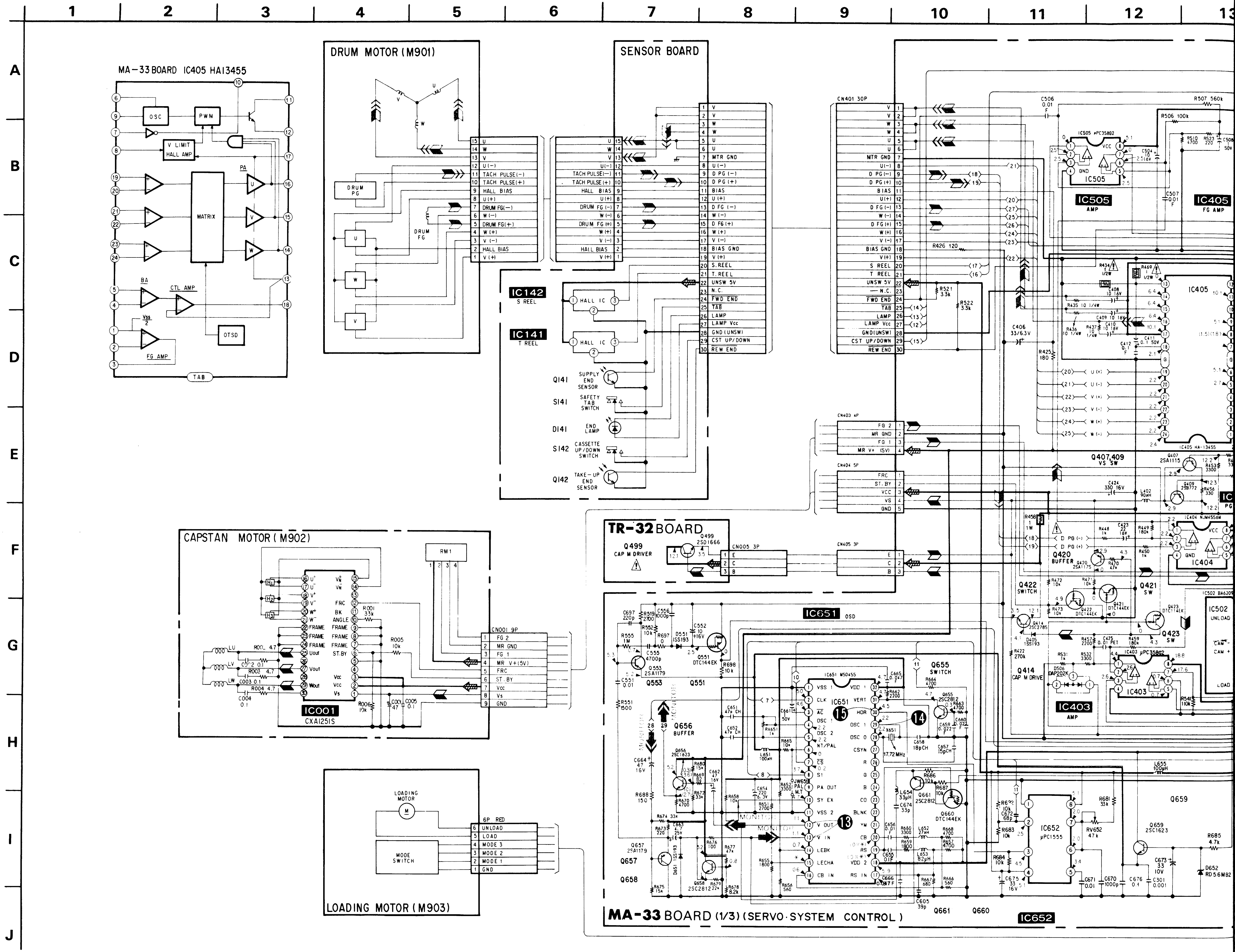
MA-33 BOARD



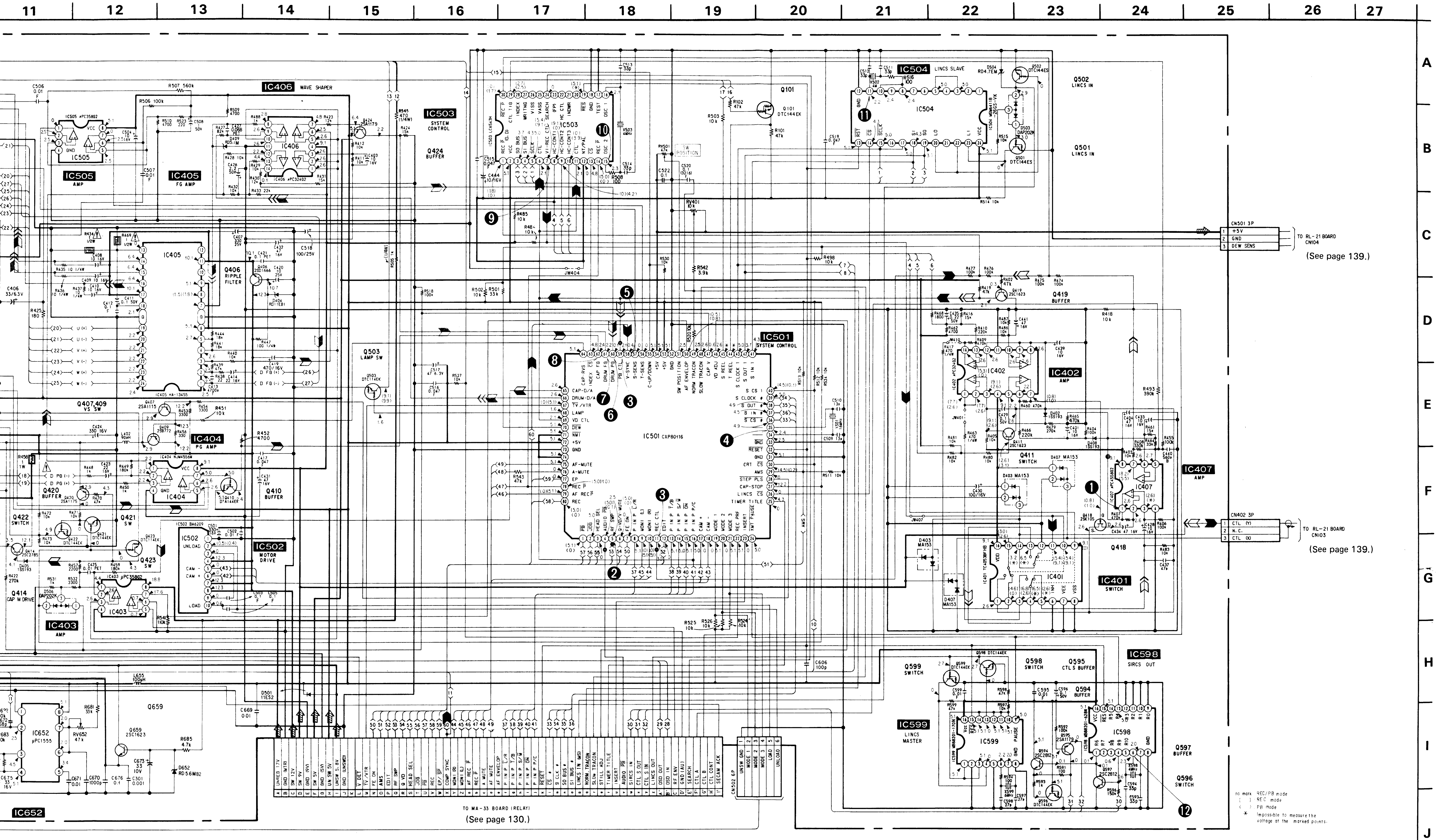
Signal path

	REC	REC/PB	PB
Drum speed servo		➧	
Drum phase servo		➧›	
Drum servo (speed and phase)		➧»	
Capstan speed servo		➧	
Capstan phase servo	➡›		⇨›
Capstan servo (speed and phase)		➧»	
Ref. signal	➡	➧	⇨

➡» : REC Y/CHROMA Signal


1 2 3 4 5 6 7 8 9 10 11 12
A B C D E F G H I J
MA-33 BOARD IC405 HA13455
OSC
PWM
V LIMIT HALL AMP
MATRIX
BA
CTL AMP
Vss/2
FG AMP
OTSD
TAB
DRUM MOTOR (M901)
DRUM PG
DRUM FG
SENSOR BOARD
IC142 S REEL
IC141 T REEL
HALL IC
Q141 SUPPLY END SENSOR
S141 SAFETY TAB SWITCH
D141 END LAMP
S142 CASSETTE UP/DOWN SWITCH
Q142 TAKE-UP END SENSOR
CN401 30P
CN403 4P
CN404 5P
CN405 3P
CAPSTAN MOTOR (M902)
IC001
CXA1251S
RM1
CN001 9P
TR-32 BOARD
Q499 2SD1666
Q499 CAP M DRIVER
CN005 3P
LOADING MOTOR
MODE SWITCH
6P RED
LOADING MOTOR (M903)
IC651 OSD
IC651 M50455
Q553 2SA1179
Q551 DTC144EK
Q655 SWITCH
Q656 BUFFER
Q657 2SA1179
Q658 2SC2812
Q661 2SC2812
Q660 DTC144EK
IC652 μPC1555
Q659 2SC1623
IC505 AMP
IC505 μPC3580
IC405 FG AMP
IC405 HA-13455
Q407,409 VS SW
IC404 NJM4556M
Q420 BUFFER
Q422 SWITCH
Q421 SW
Q423 SW
Q414 CAP M DRIVE
IC403 AMP
IC502
MA-33 BOARD (1/3) (SERVO·SYSTEM CONTROL)

SERVO, SYSTEM CONTROL


IC406 WAVE SHAPER
IC505 AMP
IC405 FG AMP
IC503 SYSTEM CONTROL
Q424 BUFFER
IC504 LINCS SLAVE
Q101 DTC144EK
Q502 LINCS IN
Q501 LINCS IN
IC405 HA-13455
Q406 RIPPLE FILTER
CN501 3P
+5V
GND
DEW SENS
TO RL-21 BOARD CN104
(See page 139.)
Q419 BUFFER
IC402 AMP
Q503 LAMP SW
IC501 SYSTEM CONTROL
IC501 CXP80116
Q407,409 VS SW
IC404 PG AMP
Q410 BUFFER
Q420 BUFFER
Q422 SWITCH
Q421 SW
Q423 SW
IC502 MOTOR DRIVE
IC502 BA6209
Q414 CAP M DRIVE
IC403 AMP
Q411 SWITCH
IC407 AMP
CN402 3P
CTL (Y)
N.C.
CTL (X)
TO RL-21 BOARD CN103
(See page 139.)
IC401 SWITCH
Q418
IC598 SIRCS OUT
Q599 SWITCH
Q598 SWITCH
Q595 CTL S BUFFER
Q594 BUFFER
IC599 LINCS MASTER
Q597 BUFFER
Q596 SWITCH
IC652 µPC1555
Q659
TO MA-33 BOARD (RELAY)
(See page 130.)
CN502 6P
11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27
A B C D E F G H I J

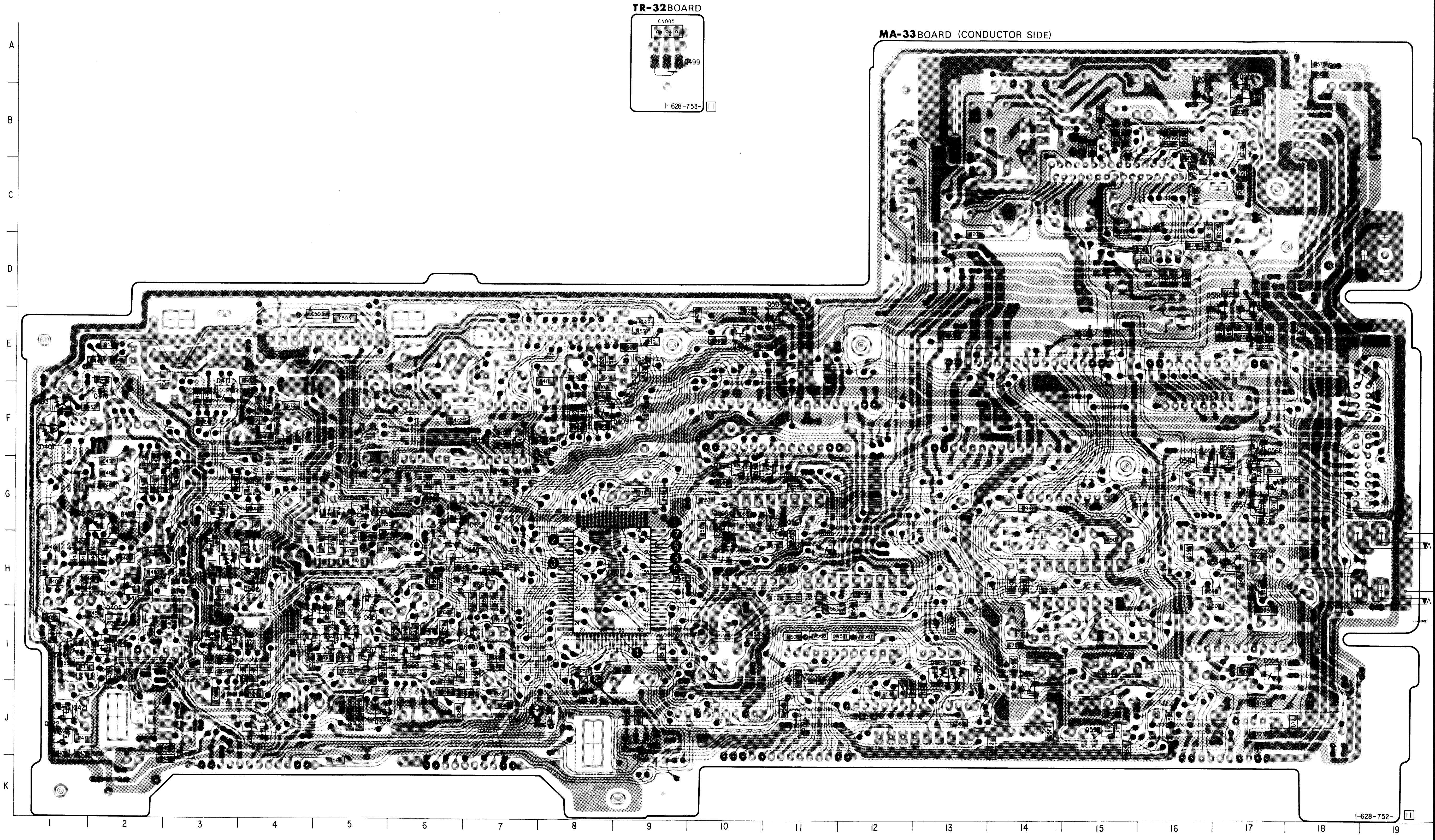
no mark: REC/PB mode
( ): REC mode
< >: PB mode
*: Impossible to measure the voltage at the marked points.

SERVO, SYSTEM CONTROL SERVO, SYSTEM CONTROL

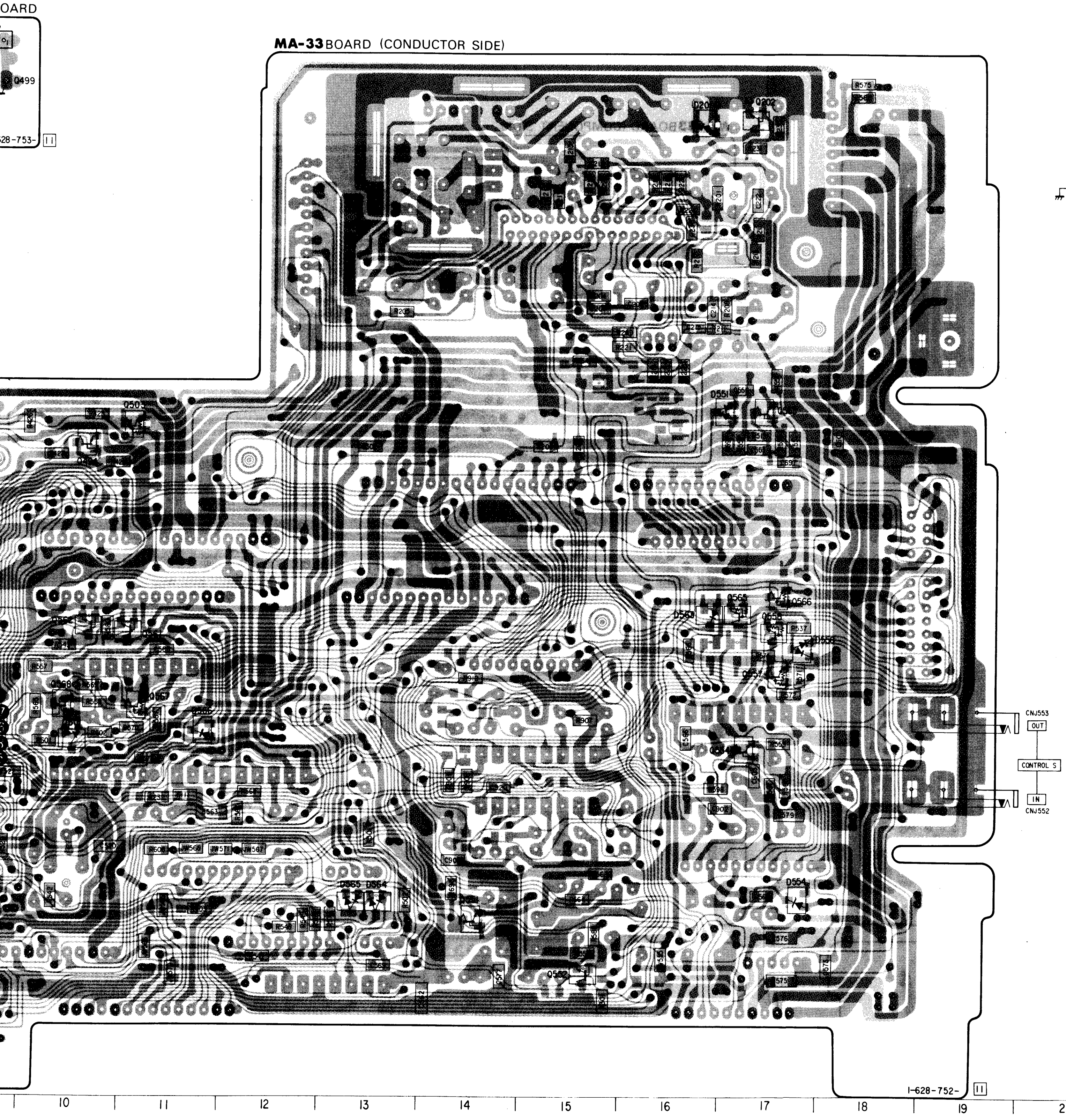
MA-33(SERVO, SYSTEM CONTROL), TR-32(CAPSTAN MOTOR DRIVE), SENSOR PRINTED WIRING BOARDS

—Ref. No. MA-33 and TR-32 BOARDS : 6,000 series—

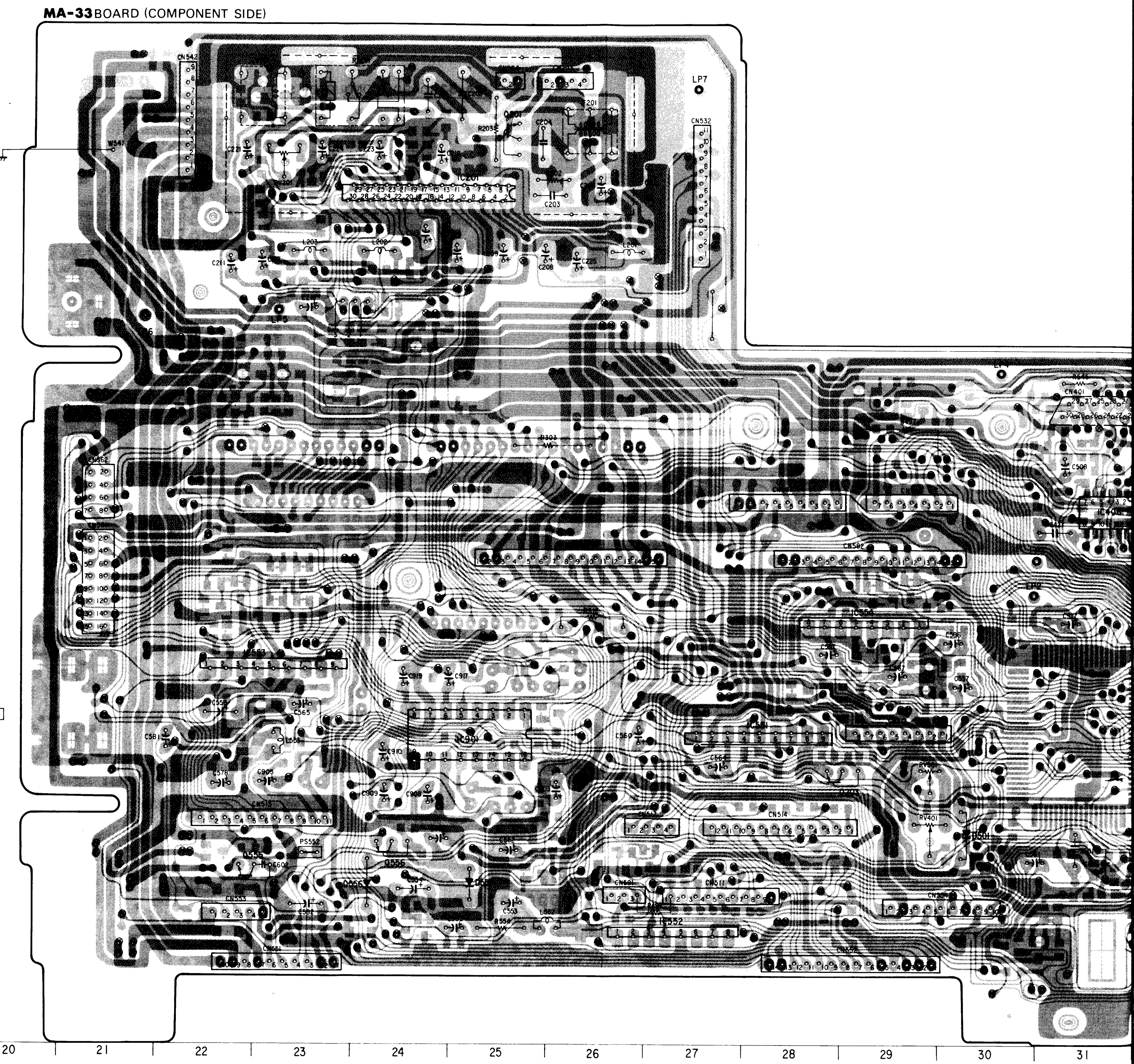
CN203	A-26
CN204	A-25
CN401	E-31
CN402	F-38
CN403	F-37
CN404	I-37
CN405	H-37
CN501	J-26
CN502	G-33
CN511	J-27
CN512	H-29
CN513	I-23
CN514	I-28
CN517	I-26
CN521	J-36
CN522	J-32
CN531	F-29
CN532	B-27
CN541	F-28
CN542	A-22
CN551	J-23
CN552	J-29
CN553	J-22
CN554	J-29
CN561	F-21
CN562	E-21
CN581	F-26
CN582	F-29
CNJ552	H-19
CNJ553	H-19
D201	A-16
D402	G-1
D403	F-1
D404	E-37
D405	I-2
D407	F-1
D408	G-2
D409	F-8
D411	F-3
D501	I-30
D503	H-3
D504	G-3
D506	I-1
D551	D-16
D554	I-17
D555	J-25
D556	J-24
D558	G-17
D560	J-7
D561	G-17
D563	F-16
D564	I-13
D565	I-13
D566	H-11
D651	I-5
D652	G-6
IC201	B-25
IC401	G-38
IC402	H-38
IC403	I-38
IC404	E-38
IC405	F-33
IC406	F-31
IC407	G-37
IC501	H-8
IC502	E-35
IC503	H-34
IC504	H-36
IC505	G-32
IC551	H-28
IC552	J-27
IC553	G-22
IC554	G-29
IC555	F-36
IC598	I-35
IC599	I-36
IC651	I-33
IC652	F-36
IC901	H-25
LV201	A-22
Q101	J-4
Q201	B-25
Q202	A-17
Q203	I-29
Q406	E-36
Q407	J-37
Q409	J-37
Q410	F-2
Q411	H-2
Q414	I-36
Q418	G-38
Q419	G-5
Q420	J-38
Q421	J-1
Q422	J-1
Q423	I-2
Q424	E-10
Q501	H-3
Q502	H-4
Q503	D-11
Q551	I-14
Q552	J-15
Q553	D-17
Q554	H-17
Q555	I-22
Q556	I-24
Q557	G-17
Q558	F-17
Q561	G-11
Q562	G-10
Q565	F-17
Q566	F-17
Q567	G-11
Q568	G-10
Q594	I-4
Q595	I-5
Q596	I-5
Q597	I-4
Q598	I-3
Q599	I-3
Q601	H-10
Q655	J-5
Q656	J-9
Q657	I-5
Q658	I-6
Q659	H-6
Q660	I-6
Q661	H-6
RV201	B-23
RV401	I-29
RV501	H-29
RV651	H-33
RV652	F-35



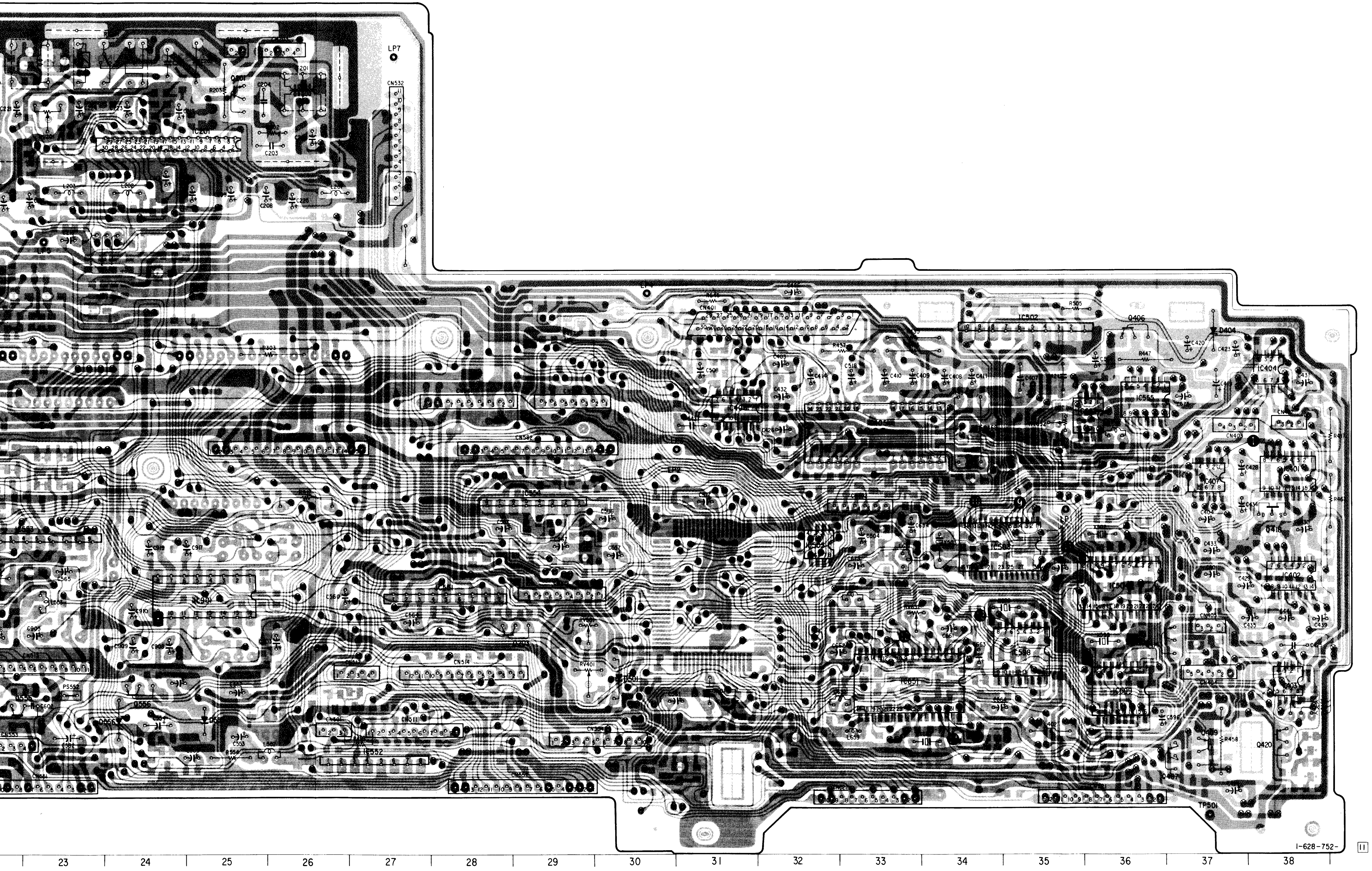
MA-33 BOARD (CONDUCTOR SIDE)


OARD
Q499
628-753- 11
D201
Q202
R575
D551
D566
D564
D565
D554
Q562
CNJ553
OUT
CONTROL S
IN
CNJ552
1-628-752- 11
10
11
12
13
14
15
16
17
18
19
20

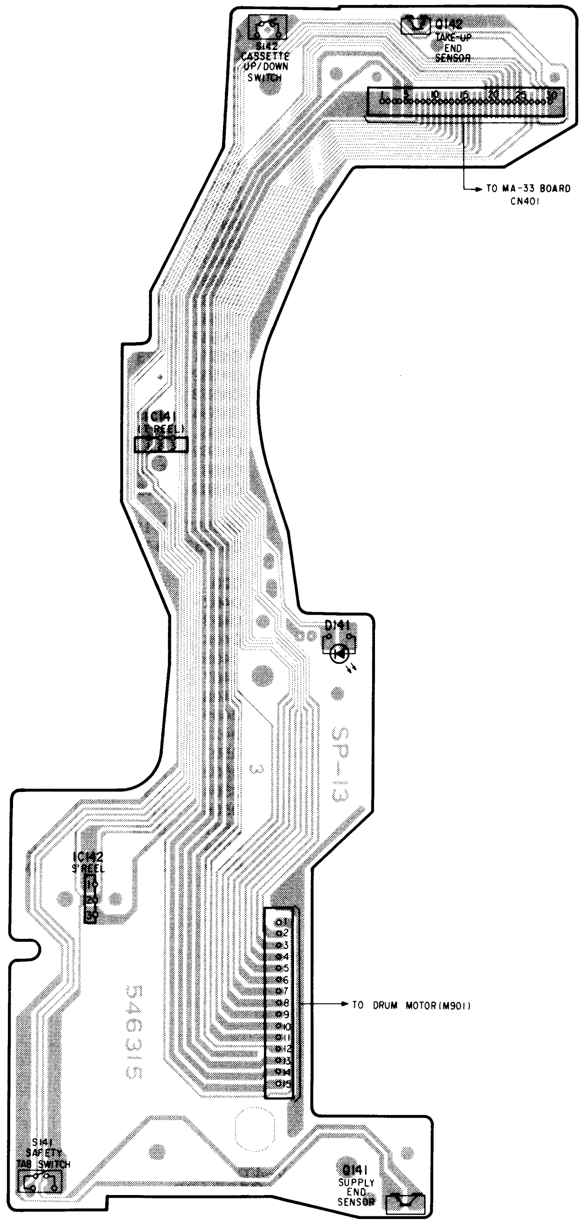
MA-33 BOARD (COMPONENT SIDE)


CN542
LP7
CN532
IC201
C203
L201
L202
C208
CN562
CN502
CN514
CN517
CN552
RV401
PS552
21
22
23
24
25
26
27
28
29
30
31

SIDE)


LP7
CN532
IC201
C203
R203
C208
C225
R303
IC502
R505
Q406
D404
C420
C423
R447
IC404
IC555
CN403
IC401
IC407
C428
IC402
CN514
RV401
IC552
TP501
Q420
R458
1-628-752-
11
23
24
25
26
27
28
29
30
31
32
33
34
35
36
37
38

SENSOR BOARD

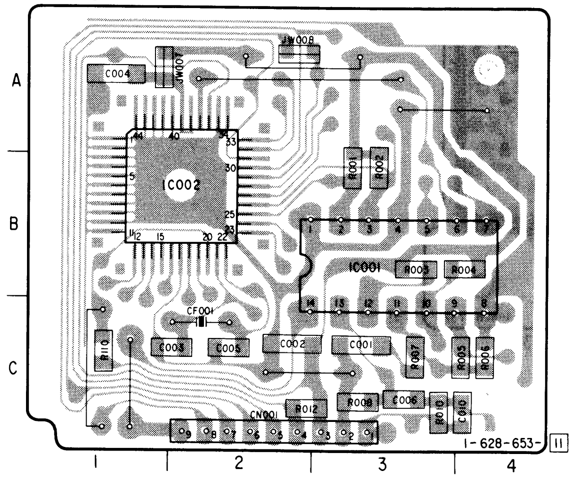

S142
CASSETTE
UP/DOWN
SWITCH
Q142
TAKE-UP
END
SENSOR
1
5
10
15
20
25
30
TO MA-33 BOARD
CN401
IC141
(T REEL)
D141
SP-13
3
IC142
S'REEL
1
2
3
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
TO DRUM MOTOR (M901)
546315
S141
SAFETY
TAB SWITCH
Q141
SUPPLY
END
SENSOR

MA-33, TK-6(RELAY), IO-14(IN/OUTPUT, IN/OUT SELECT), TM-95 (VPS) PRINTED WIRING BOARDS

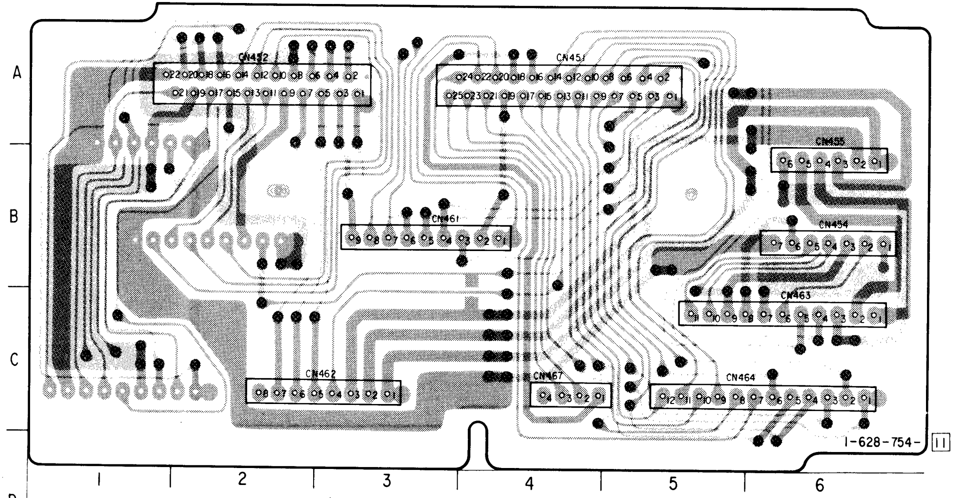
—Ref. No. MA-33, TK-6 and TM-95 BOARDS : 6,000 series, IO-14 BOARD : 7,000 series—

CN203	A-26
CN204	A-25
CN401	E-31
CN402	F-38
CN403	F-37
CN404	I-37
CN405	H-37
CN501	J-26
CN502	G-33
CN511	J-27
CN512	H-29
CN513	I-23
CN514	I-28
CN517	I-26
CN521	J-36
CN522	J-32
CN531	F-29
CN532	B-27
CN541	F-28
CN542	A-22
CN551	J-23
CN552	J-29
CN553	J-22
CN554	J-29
CN561	F-21
CN562	E-21
CN581	F-26
CN582	F-29
CNJ552	H-19
CNJ553	H-19
D201	A-16
D402	G-1
D403	F-1
D404	E-37
D405	I-2
D407	F-1
D408	G-2
D409	F-8
D411	F-3
D501	I-30
D503	H-3
D504	G-3
D506	I-1
D551	D-16
D554	I-17
D555	J-25
D556	J-24
D558	G-17
D560	J-7
D561	G-17
D563	F-16
D564	I-13
D565	I-13
D566	H-11
D651	I-5
D652	G-6
IC201	B-25
IC401	G-38
IC402	H-38
IC403	I-38
IC404	E-38
IC405	F-33
IC406	F-31
IC407	G-37
IC501	H-8
IC502	E-35
IC503	H-34
IC504	H-36
IC505	G-32
IC551	H-28
IC552	J-27
IC553	G-22
IC554	G-29
IC555	F-36
IC598	I-35
IC599	I-36
IC651	I-33
IC652	F-36
IC901	H-25
LV201	A-22
Q101	J-4
Q201	B-25
Q202	A-17
Q203	I-29
Q406	E-36
Q407	J-37
Q409	J-37
Q410	F-2
Q411	H-2
Q414	I-36
Q418	G-38
Q419	G-5
Q420	J-38
Q421	J-1
Q422	J-1
Q423	I-2
Q424	E-10
Q501	H-3
Q502	H-4
Q503	D-11
Q551	I-14
Q552	J-15
Q553	D-17
Q554	H-17
Q555	I-22
Q556	I-24
Q557	G-17
Q558	F-17
Q561	G-11
Q562	G-10
Q565	F-17
Q566	F-17
Q567	G-11
Q568	G-10
Q594	I-4
Q595	I-5
Q596	I-5
Q597	I-4
Q598	I-3
Q599	I-3
Q601	H-10
Q655	J-5
Q656	J-9
Q657	I-5
Q658	I-6
Q659	H-6
Q660	I-6
Q661	H-6
RV201	B-23
RV401	I-29
RV501	H-29
RV651	H-33
RV652	F-35

SLV-402 MODEL
TM-95BOARD

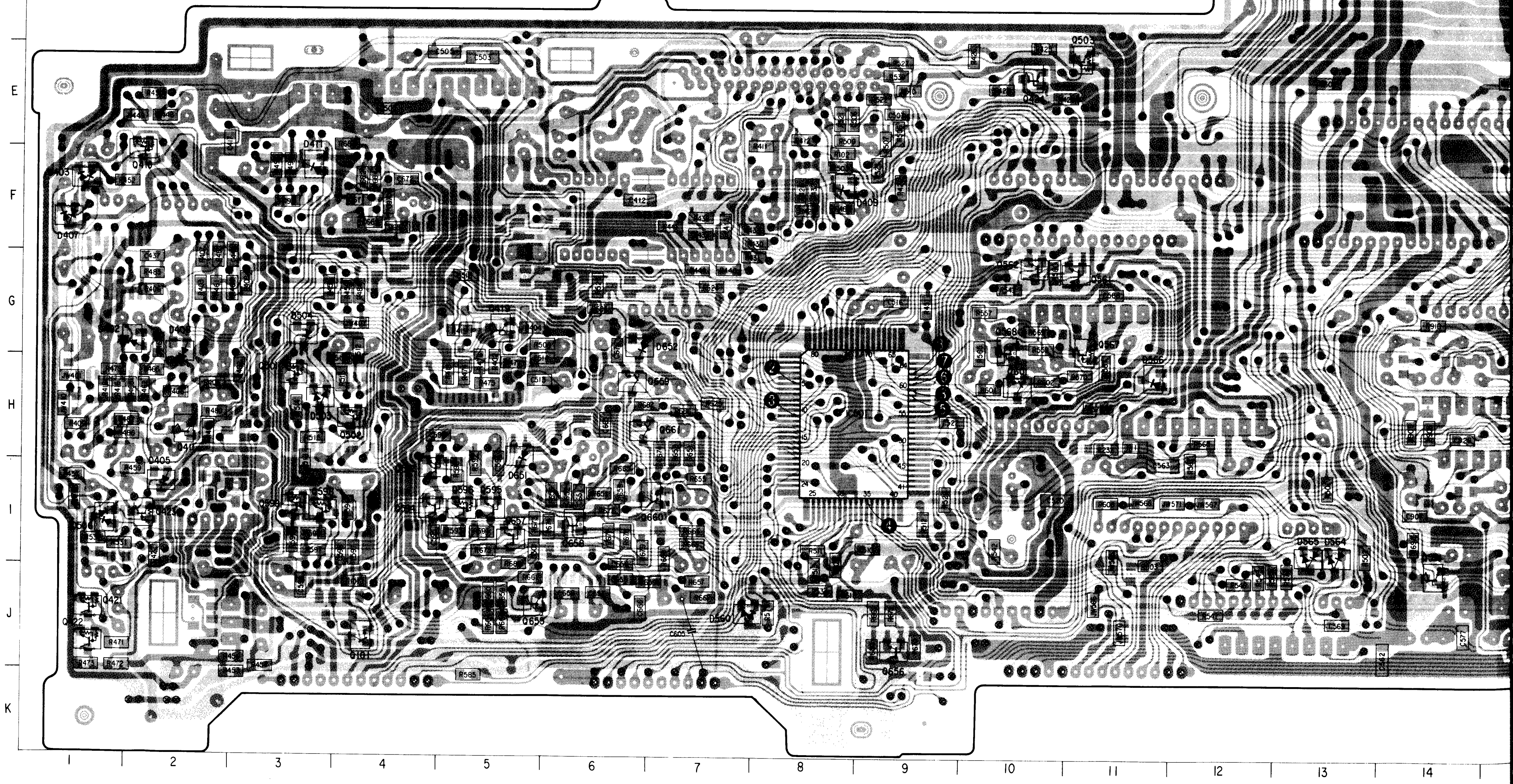

A
B
C
1
2
3
4
C004
SW008
IC002
IC001
R001
R002
R003
R004
CF001
C003
C005
C002
C001
R007
R005
R006
R011
R012
R008
C006
CN001
1-628-653-11

TK-6 BOARD


A
B
C
D
1
2
3
4
5
6
CN452
CN451
CN455
CN461
CN454
CN463
CN462
CN467
CN464
1-628-754-11

CN451	A-4
CN452	A-2
CN454	B-6
CN455	A-6
CN461	B-3
CN462	C-3
CN463	C-6
CN464	C-5
CN467	C-4

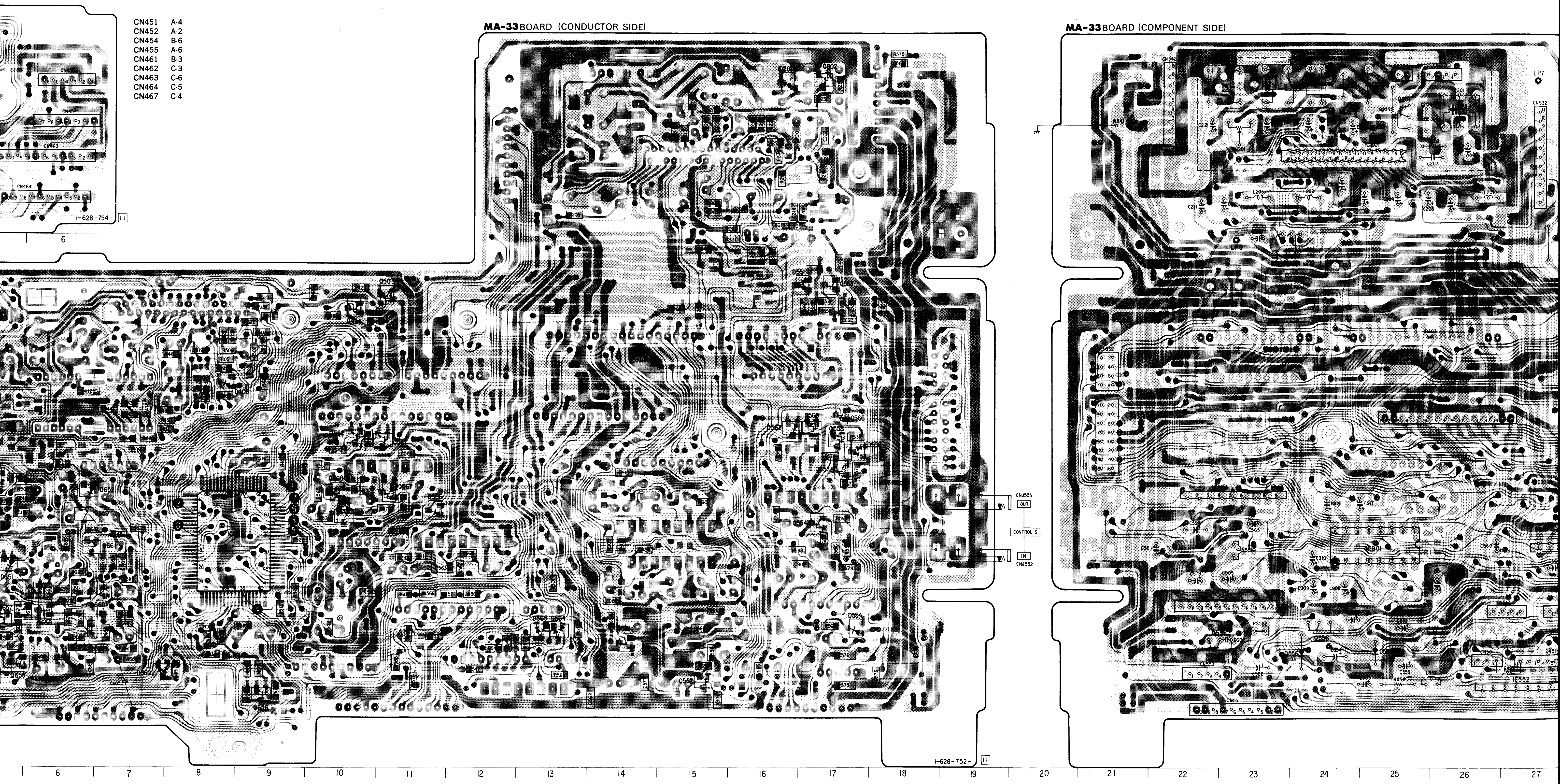
MA-33BOARD (CONDUCTOR SIDE)


E
F
G
H
I
J
K
1
2
3
4
5
6
7
8
9
10
11
12
13
14
D407
D411
Q410
Q405
Q422
Q421
R471
R472
R473
D503
D504
R565
IC501
Q503
D564
D565
D560
Q656
Q655

RELAY

, TM-95 (VPS) PRINTED WIRING BOARDS

.RD : 7,000 series—

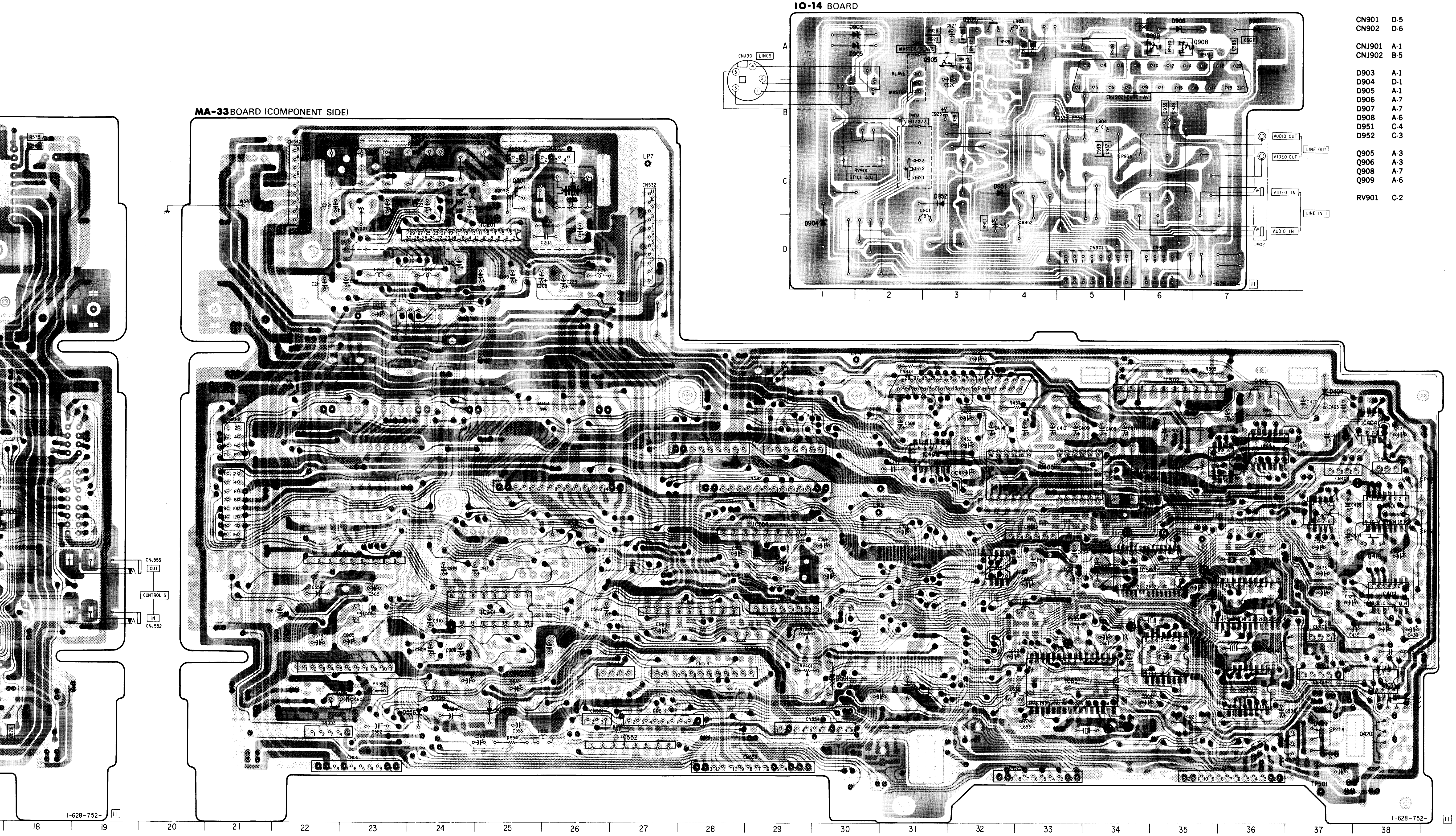


CN451	A-4
CN452	A-2
CN454	B-6
CN455	A-6
CN461	B-3
CN462	C-3
CN463	C-6
CN464	C-5
CN467	C-4

MA-33BOARD (CONDUCTOR SIDE)
MA-33BOARD (COMPONENT SIDE)
1-628-754- 11
1-628-752- 11
CN455
CN454
CN463
CN464
CNJ553
OUT
CONTROL S
IN
CNJ552
LP7
CN532
LP5
CN542
CN362
CN601
IC552
6
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27

IO-14 BOARD

MA-33 BOARD (COMPONENT SIDE)

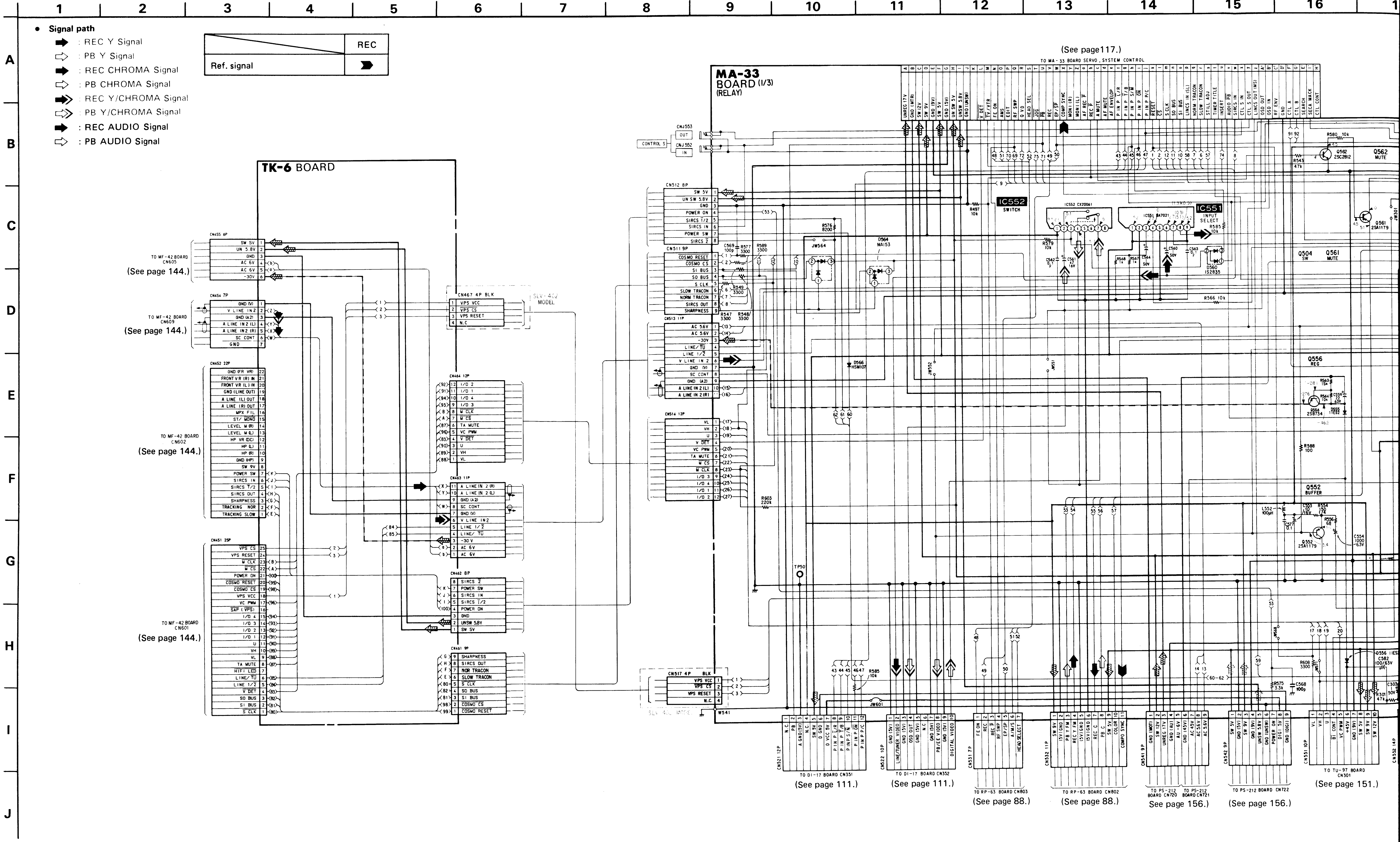

CNJ901 LINCS
MASTER/SLAVE
SLAVE
MASTER
VTR1/2/3
RV901 STILL ADJ
CNJ902 EURO-AV
AUDIO OUT
VIDEO OUT
LINE OUT
VIDEO IN
LINE IN 1
AUDIO IN
J902
A
B
C
D
1
2
3
4
5
6
7
1-628-654-11
CNJ553
OUT
CONTROL S
IN
CNJ552
LP7
CN532
1-628-752-11
18
19
20
21
22
23
24
25
26
27
28
29
30
31
32
33
34
35
36
37
38

CN901	D-5
CN902	D-6
CNJ901	A-1
CNJ902	B-5
D903	A-1
D904	D-1
D905	A-1
D906	A-7
D907	A-7
D908	A-6
D951	C-4
D952	C-3
Q905	A-3
Q906	A-3
Q908	A-7
Q909	A-6
RV901	C-2

RELAY RELAY

MA-33, TK-6(RELAY), IO-14(IN/OUTPUT, IN/OUT SELECT), TM-95 (VPS) SCHEMATIC DIAGRAM

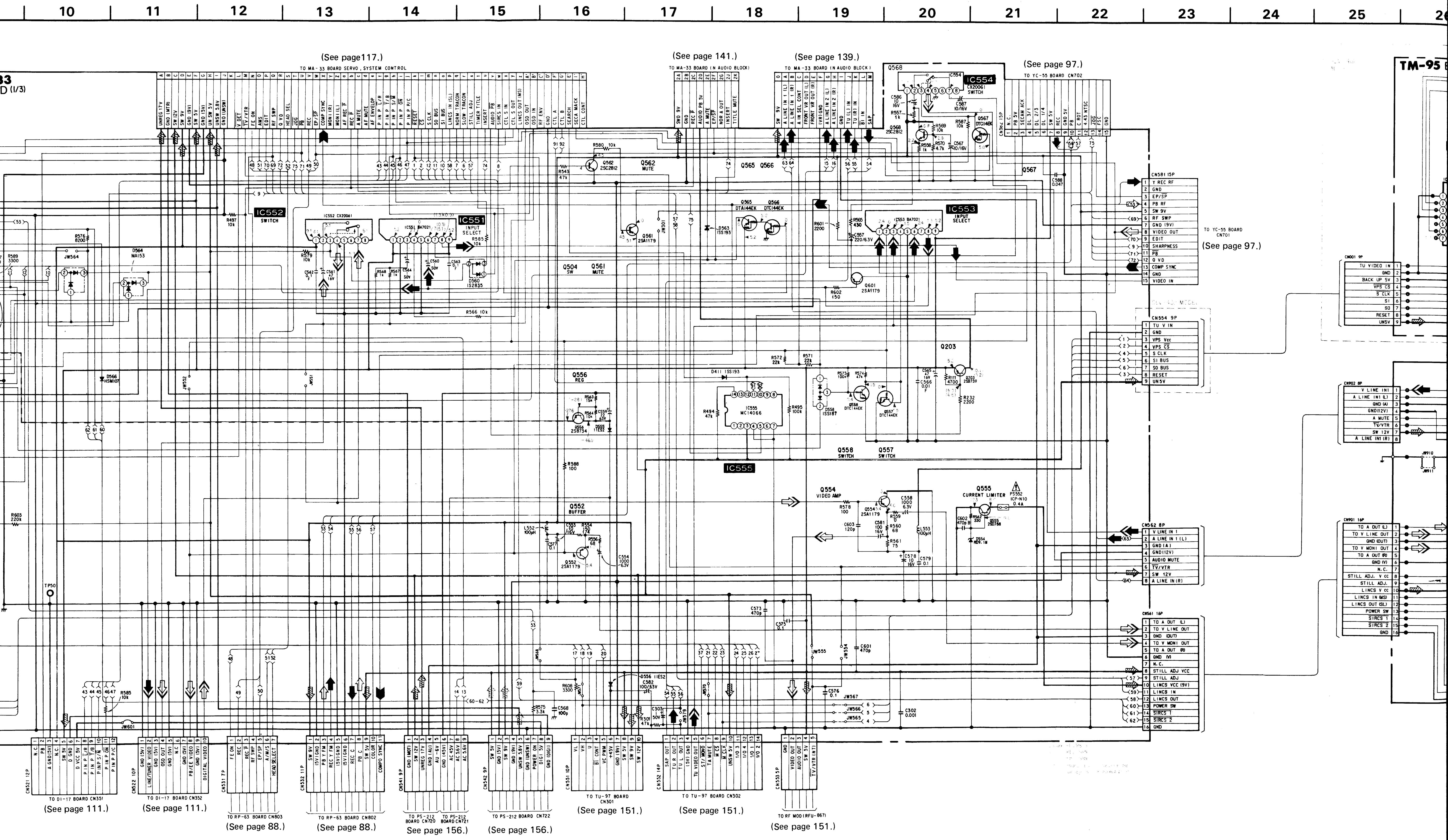
—Ref. No. MA-33, TK-6 and TM-95 BOARDS : 6,000 series, IO-14 BOARD : 7,000 series—

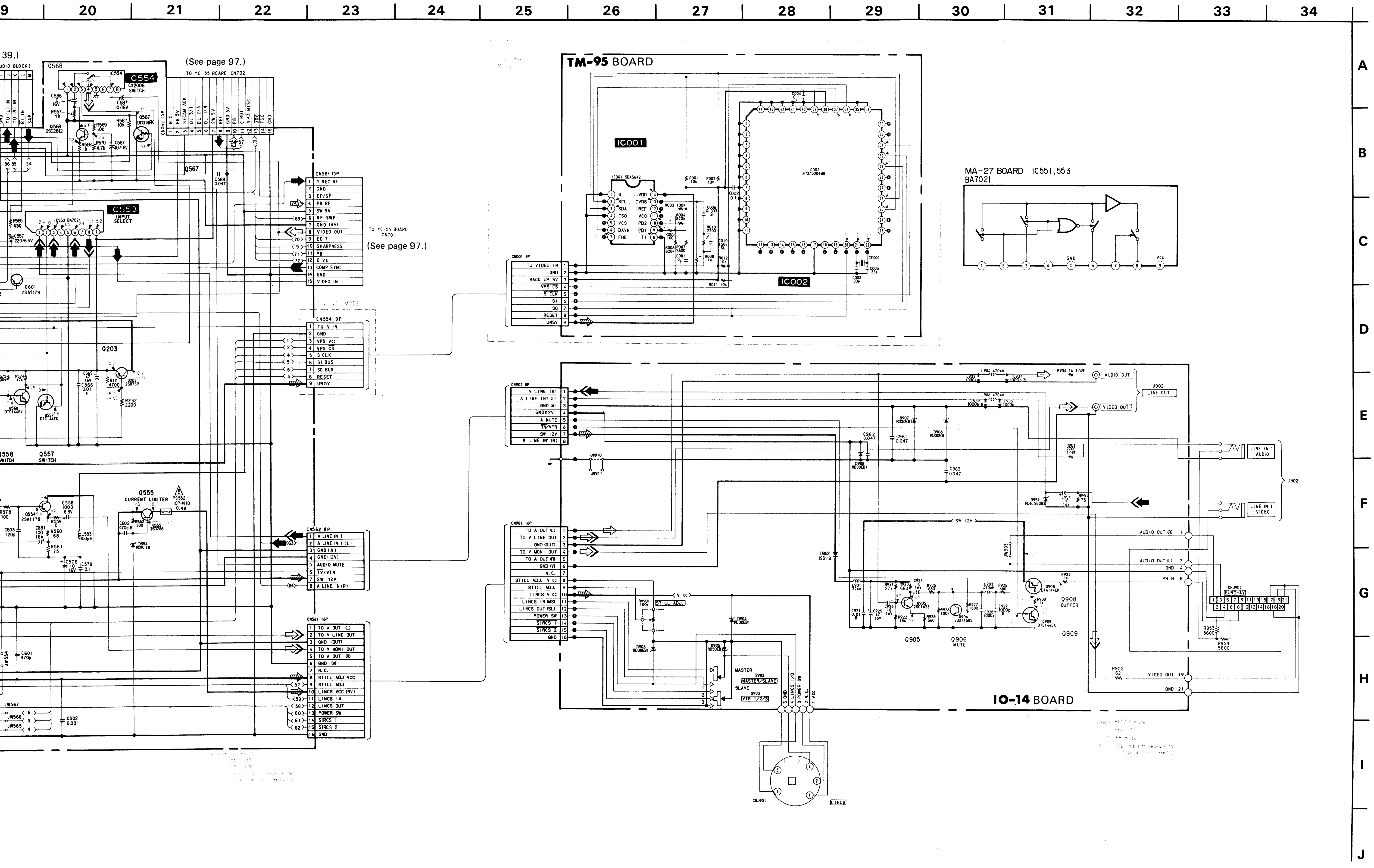


- Signal path
  - ➡ : REC Y Signal
  - ⇨ : PB Y Signal
  - ➡ : REC CHROMA Signal
  - ⇨ : PB CHROMA Signal
  - ➡ : REC Y/CHROMA Signal
  - ⇨ : PB Y/CHROMA Signal
  - ➡ : REC AUDIO Signal
  - ⇨ : PB AUDIO Signal

	REC
Ref. signal	➤

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
A
B
C
D
E
F
G
H
I
J
TK-6 BOARD
MA-33 BOARD (1/3) (RELAY)
(See page117.)
TO MA-33 BOARD SERVO, SYSTEM CONTROL
CN455 6P
SW 5V
UN 5.8V
GND
AC 6V
AC 6V
-30V
TO MF-42 BOARD CN605
(See page 144.)
CN454 7P
GND (V)
V LINE IN 2
GND (A2)
A LINE IN 2 (L)
A LINE IN 2 (R)
SC CONT
GND
TO MF-42 BOARD CN609
(See page 144.)
CN452 22P
TO MF-42 BOARD CN602
(See page 144.)
CN451 25P
TO MF-42 BOARD CN601
(See page 144.)
CN467 4P BLK
VPS VCC
VPS CS
VPS RESET
N.C
SLV-462 MODEL
CN464 12P
CN463 11P
CN462 8P
CN461 9P
CN512 8P
CN511 9P
CN513 11P
CN514 12P
CN517 4P BLK
CNJ553 OUT
CNJ552 IN
CONTROL S
IC552 SWITCH
IC552 CX20061
IC551 INPUT SELECT
IC551 BA7021
Q562 MUTE
Q561 MUTE
Q504 SW
Q556 REG
Q552 BUFFER
D564 MA153
D566 HSM107
D560 1S2835
JW564
JW552
JW551
JW601
W541
TP50
CN521 12P
TO DI-17 BOARD CN351
(See page 111.)
CN522 10P
TO DI-17 BOARD CN352
(See page 111.)
CN531 7P
TO RP-63 BOARD CN803
(See page 88.)
CN532 11P
TO RP-63 BOARD CN802
(See page 88.)
CN541 9P
TO PS-212 BOARD CN720
TO PS-212 BOARD CN721
See page 156.)
CN542 9P
TO PS-212 BOARD CN722
(See page 156.)
CN551 10P
TO TU-97 BOARD CN301
(See page 151.)
CN532 14P

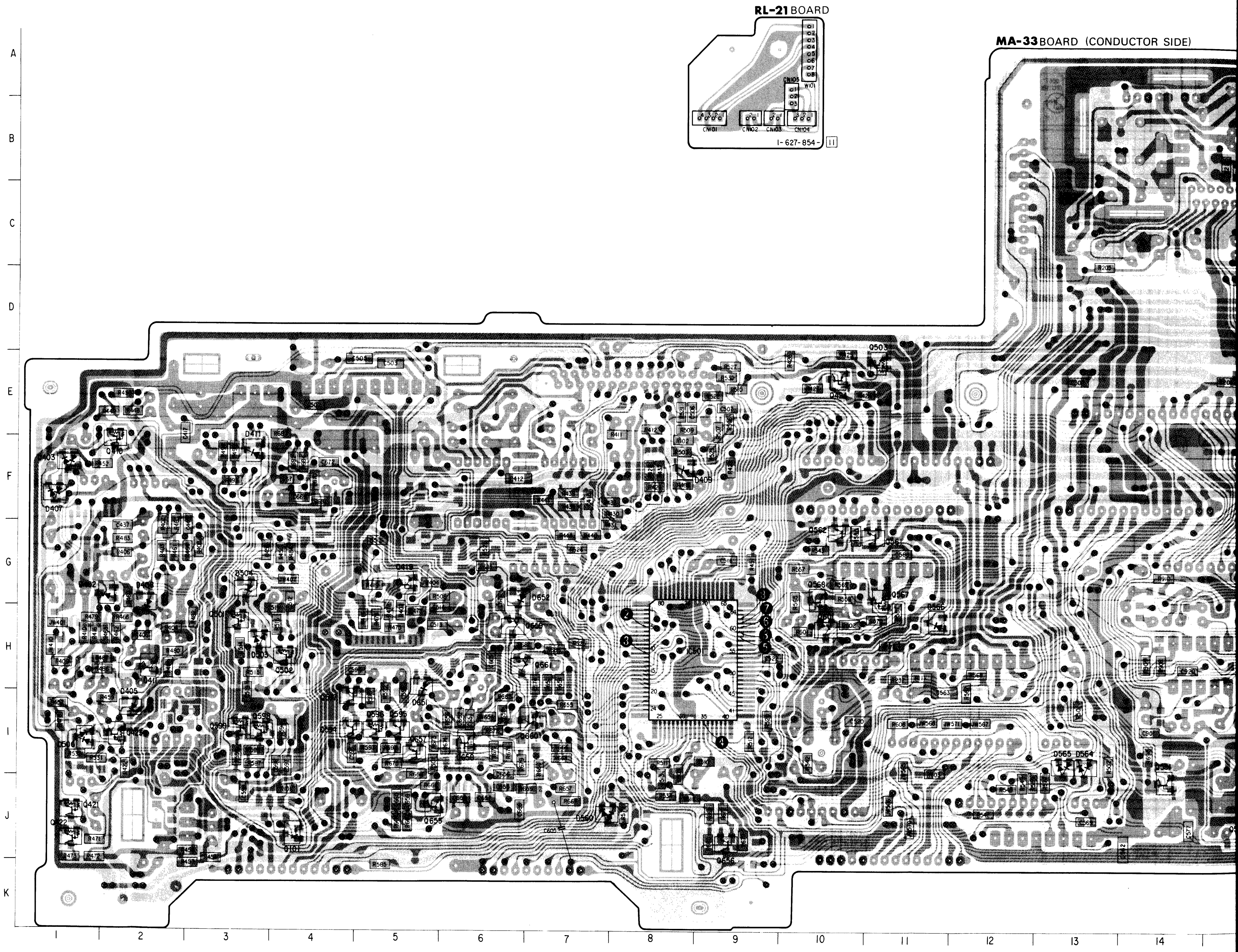

10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
33
D (1/3)
TM-95
(See page117.)
TO MA-33 BOARD SERVO, SYSTEM CONTROL
(See page 141.)
TO MA-33 BOARD (N AUDIO BLOCK)
(See page 139.)
TO MA-33 BOARD (N AUDIO BLOCK)
(See page 97.)
TO YC-55 BOARD CN702
IC552
SWITCH
IC552 CX20061
IC551
INPUT SELECT
IC551 BA7021
IC553
INPUT SELECT
IC553 BA7021
IC554
CX20061
SWITCH
IC555
IC555 MC14066
Q562
MUTE
Q562 2SC2812
Q565
Q566
Q565 DTA144EK
Q566 DTC144EK
Q567
Q568
Q568 2SC2812
Q561 2SA1179
Q504 SW
Q561 MUTE
Q601 2SA1179
Q203
Q203 2SB739
Q556
REG
Q556 2SB754
Q558 SWITCH
Q557 SWITCH
Q558 DTC144EK
Q557 DTC144EK
Q554
VIDEO AMP
Q554 2SA1179
Q555
CURRENT LIMITER
Q552
BUFFER
Q552 2SA1179
PS552 ICP-N10 0.4A
D564 MA153
D566 HSM107
D560 1S2835
D563 1SS193
D411 1SS193
D558 1SS187
D565 11E32
D554 RD9.1M
D556 11ES2
JW564
JW552
JW551
JW301
JW601
JW555
JW554
JW567
JW566
JW565
JW568
JW570
JW910
JW911
TP50
CN581 15P
TO YC-55 BOARD CN701
(See page 97.)
CN554 9P
CN562 8P
CN561 16P
CN001 9P
CN902 8P
CN901 16P
CN521 12P
TO DI-17 BOARD CN351
(See page 111.)
CN522 10P
TO DI-17 BOARD CN352
(See page 111.)
CN531 7P
TO RP-63 BOARD CN803
(See page 88.)
CN532 11P
TO RP-63 BOARD CN802
(See page 88.)
CN541 9P
TO PS-212 BOARD CN720
TO PS-212 BOARD CN721
See page 156.)
CN542 9P
TO PS-212 BOARD CN722
(See page 156.)
CN551 10P
TO TU-97 BOARD CN301
(See page 151.)
CN552 14P
TO TU-97 BOARD CN302
(See page 151.)
CN553 5P
TO RF MOD (RFU-867)
(See page 151.)


(See page 97.)
TO YC-55 BOARD CN702
IC554 CX20061 SWITCH
IC553 BA7021 INPUT SELECT
Q567 DTC114EK
Q568 2SC2812
Q601 2SA1179
Q203 2SB739
Q556 DTC144EK
Q557 DTC144EK
Q558 SWITCH
Q557 SWITCH
Q555 CURRENT LIMITER
PS552 ICP-N10 0.4A
Q554 2SA1179
CN581 15P
Y REC RF
GND
EP/SP
PB RF
SW 9V
RF SWP
GND (9V)
VIDEO OUT
EDIT
SHARPNESS
PB
Q VD
COMP SYNC
GND
VIDEO IN
TO YC-55 BOARD CN701
(See page 97.)
CN554 9P
TU V IN
GND
VPS Vcc
VPS CS
S CLK
SI BUS
SO BUS
RESET
UNSV
CN562 8P
V LINE IN 1
A LINE IN 1 (L)
GND (A)
GND (12V)
AUDIO MUTE
TV/VTR
SW 12V
A LINE IN (R)
CN561 16P
TO A OUT (L)
TO V LINE OUT
GND (OUT)
TO V MONI OUT
TO A OUT (R)
GND (V)
N.C.
STILL ADJ VCC
STILL ADJ
LINCS VCC (9V)
LINCS IN
LINCS OUT
POWER SW
SIRCS 1
SIRCS 2
GND
TM-95 BOARD
IC001 SDA5642
IC002 μPD75004GB
CN001 9P
TU VIDEO IN
GND
BACK UP 5V
VPS CS
S CLK
SI
SO
RESET
UNSV
MA-27 BOARD IC551,553 BA7021
GND
Vcc
CN902 8P
V LINE IN1
A LINE IN1 (L)
GND (A)
GND (12V)
A MUTE
TV/VTR
SW 12V
A LINE IN1 (R)
CN901 16P
TO A OUT (L)
TO V LINE OUT
GND (OUT)
TO V MONI OUT
TO A OUT (R)
GND (V)
N.C.
STILL ADJ. V CC
STILL ADJ.
LINCS V CC
LINCS IN (MSI)
LINCS OUT (SL)
POWER SW
SIRCS 1
SIRCS 2
GND
STILL ADJ.
MASTER
S902 MASTER/SLAVE
SLAVE
S903 VTR 1/2/3
IO-14 BOARD
AUDIO OUT
VIDEO OUT
J902 LINE OUT
LINE IN 1 AUDIO
LINE IN 1 VIDEO
J902
SW 12V
AUDIO OUT (R) 1
AUDIO OUT (L) 3
GND 4
PB H 8
CNJ902 EURO-AV
VIDEO OUT 19
GND 21
Q905
Q906 MUTE
Q908 BUFFER
Q909
CNJ901
LINCS
1 VCC
2 N.C.
3 POWER SW
4 LINCS I/O
5 GND

MA-33(NORMAL AUDIO PROCESS), RL-21(RELAY) PRINTED WIRING BOARDS

—Ref. No. MA-33 and RL-21 BOARDS : 6,000 series—

CN203	A-26
CN204	A-25
CN401	E-31
CN402	F-38
CN403	F-37
CN404	I-37
CN405	H-37
CN501	J-26
CN502	G-33
CN511	J-27
CN512	H-29
CN513	I-23
CN514	I-28
CN517	I-26
CN521	J-36
CN522	J-32
CN531	F-29
CN532	B-27
CN541	F-28
CN542	A-22
CN551	J-23
CN552	J-29
CN553	J-22
CN554	J-29
CN561	F-21
CN562	E-21
CN581	F-26
CN582	F-29
CNJ552	H-19
CNJ553	H-19
D201	A-16
D402	G-1
D403	F-1
D404	E-37
D405	I-2
D407	F-1
D408	G-2
D409	F-8
D411	F-3
D501	I-30
D503	H-3
D504	G-3
D506	I-1
D551	D-16
D554	I-17
D555	J-25
D556	J-24
D558	G-17
D560	J-7
D561	G-17
D563	F-16
D564	I-13
D565	I-13
D566	H-11
D651	I-5
D652	G-6
IC201	B-25
IC401	G-38
IC402	H-38
IC403	I-38
IC404	E-38
IC405	F-33
IC406	F-31
IC407	G-37
IC501	H-8
IC502	E-35
IC503	H-34
IC504	H-36
IC505	G-32
IC551	H-28
IC552	J-27
IC553	G-22
IC554	G-29
IC555	F-36
IC598	I-35
IC599	I-36
IC651	I-33
IC652	F-36
IC901	H-25
LV201	A-22
Q101	J-4
Q201	B-25
Q202	A-17
Q203	I-29
Q406	E-36
Q407	J-37
Q409	J-37
Q410	F-2
Q411	H-2
Q414	I-36
Q418	G-38
Q419	G-5
Q420	J-38
Q421	J-1
Q422	J-1
Q423	I-2
Q424	E-10
Q501	H-3
Q502	H-4
Q503	D-11
Q551	I-14
Q552	J-15
Q553	D-17
Q554	H-17
Q555	I-22
Q556	I-24
Q557	G-17
Q558	F-17
Q561	G-11
Q562	G-10
Q565	F-17
Q566	F-17
Q567	G-11
Q568	G-10
Q594	I-4
Q595	I-5
Q596	I-5
Q597	I-4
Q598	I-3
Q599	I-3
Q601	H-10
Q655	J-5
Q656	J-9
Q657	I-5
Q658	I-6
Q659	H-6
Q660	I-6
Q661	H-6
RV201	B-23
RV401	I-29
RV501	H-29
RV651	H-33
RV652	F-35



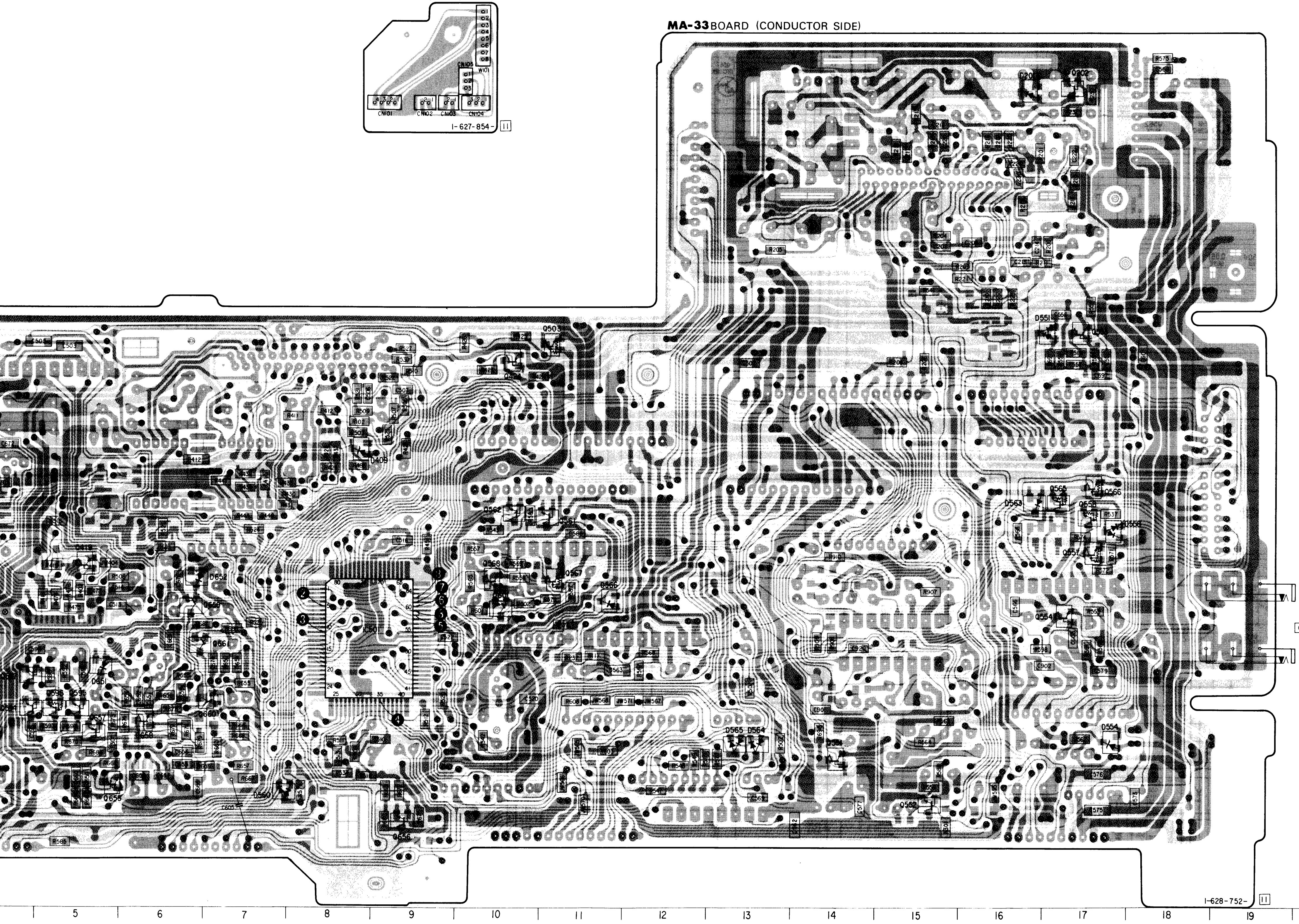
(RELAY) PRINTED WIRING BOARDS

eries—

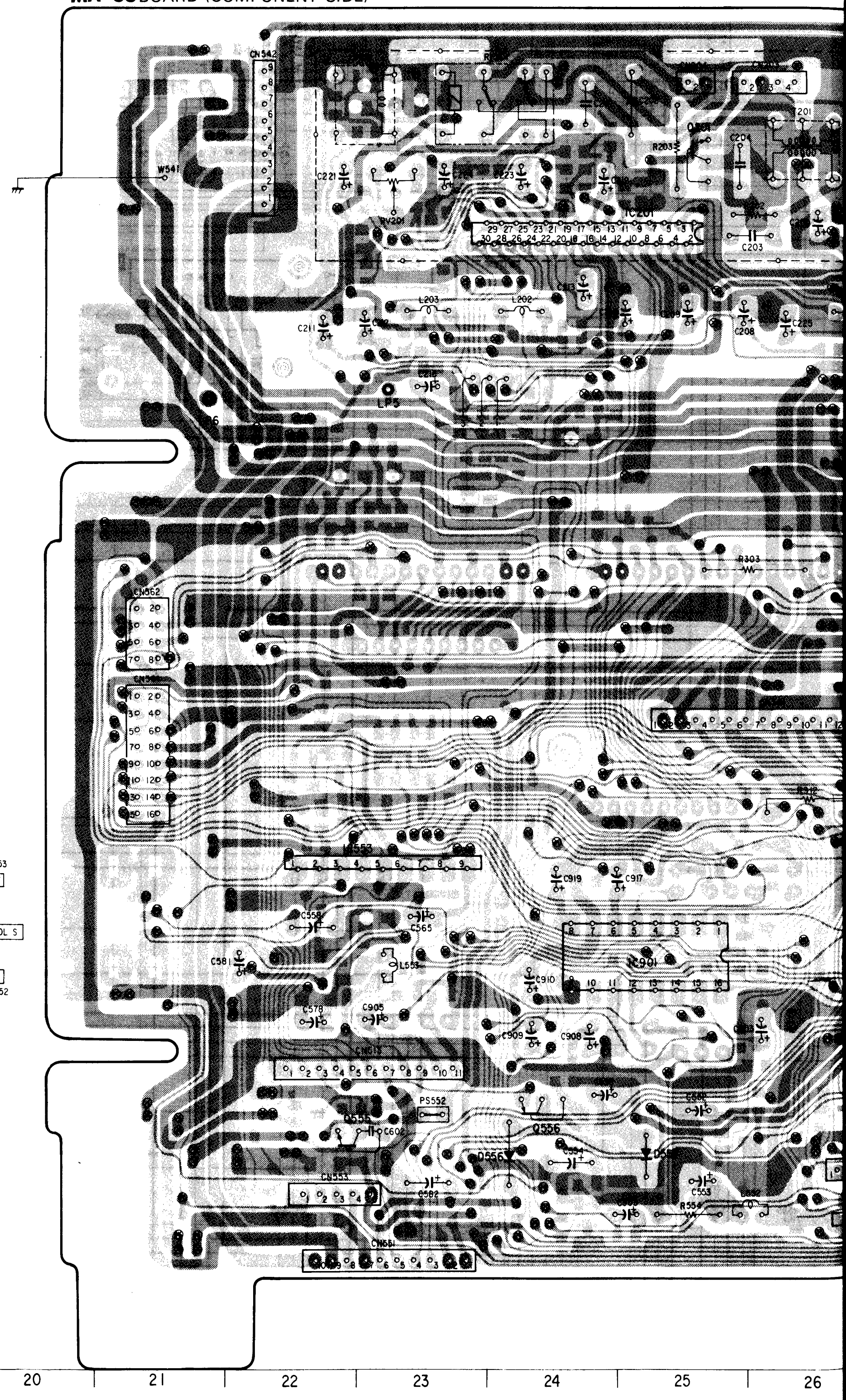
RL-21 BOARD

CN101
CN102
CN103
CN104
CN105
W101
1-627-854- 11

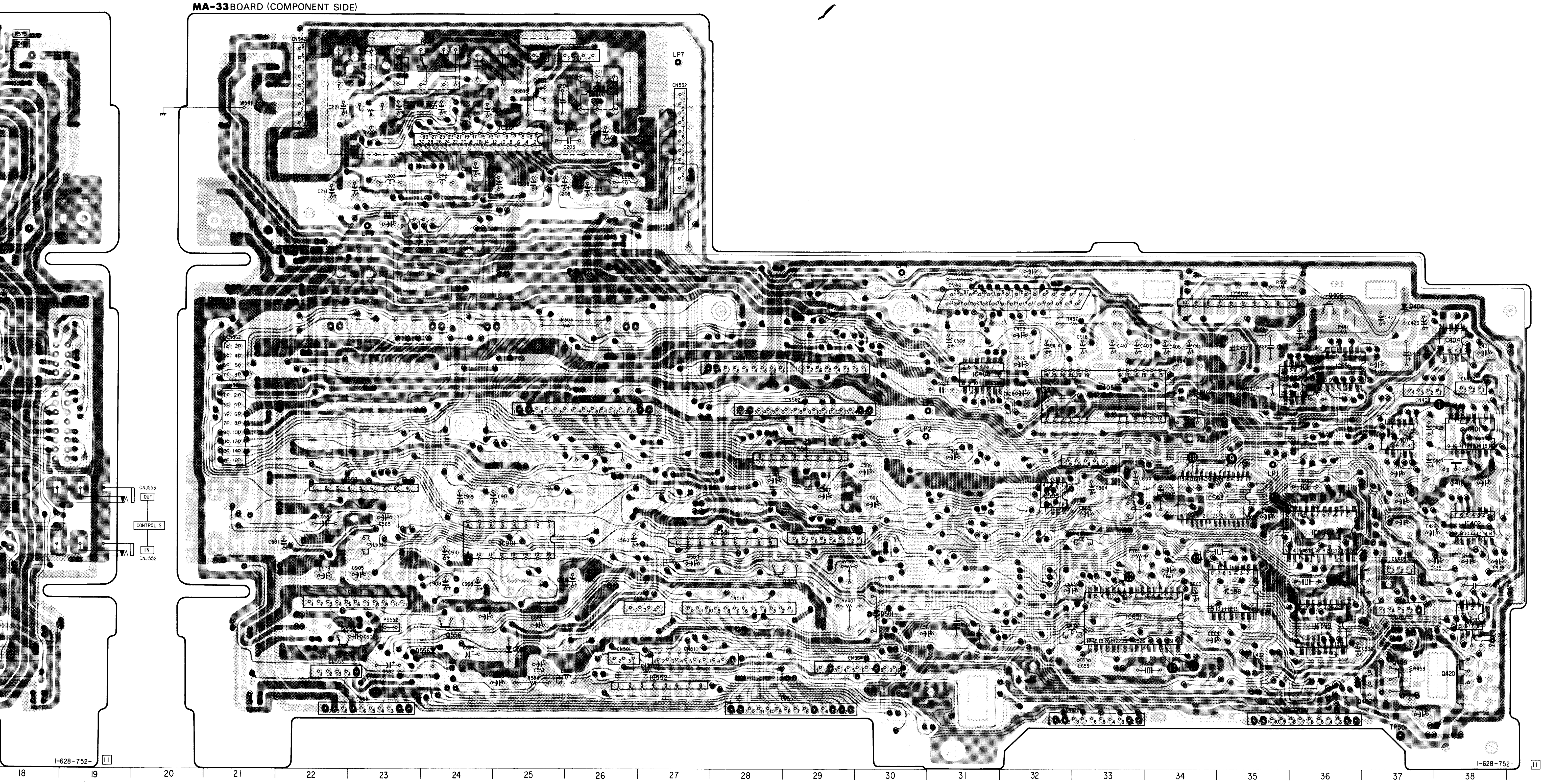
MA-33 BOARD (CONDUCTOR SIDE)


CNJ553
OUT
CONTROL S
IN
CNJ552
1-628-752- 11
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19

MA-33 BOARD (COMPONENT SIDE)

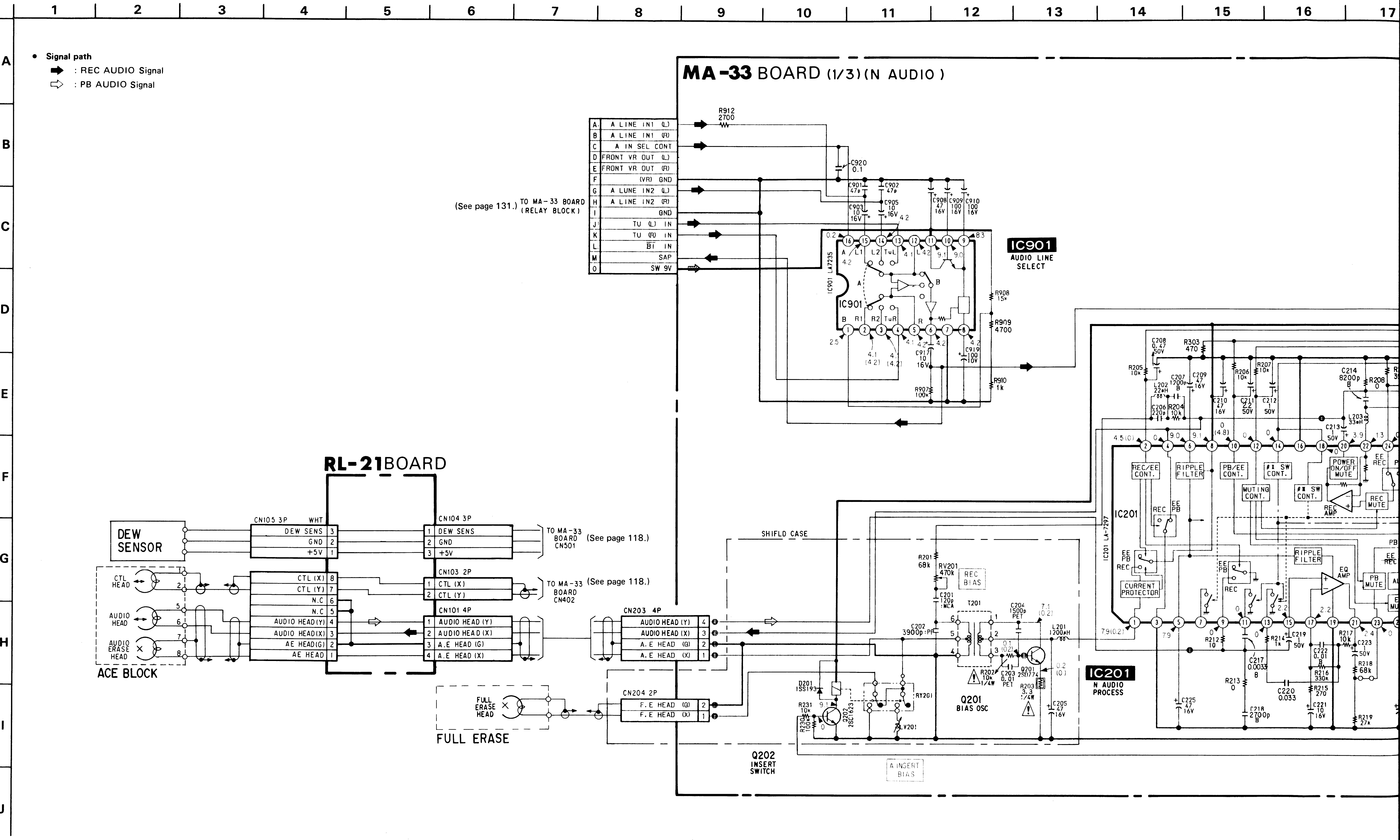

CN542
W541
CN352
20
21
22
23
24
25
26

MA-33 BOARD (COMPONENT SIDE)


CN542
W541
LP7
CN532
IC201
C203
C211
L203
L202
C208
LP5
R303
CN562
CN561
CN563
CN507
IC504
IC551
IC901
C910
C919
C917
C560
C581
C578
C906
C909
C908
CN513
CN514
Q556
D556
PS552
CN555
C563
R556
CN501
CN511
IC552
CN551
CN581
CN401
R432
IC403
IC405
IC502
Q406
R447
D404
C420
IC404
IC556
CN408
Q416
IC402
IC503
IC801
LP1
LP2
RV651
IC598
IC651
IC595
RV401
D501
CN554
CN553
CN652
TP501
Q420
R458
Q407
CNJ553
OUT
CONTROL S
IN
CNJ552
1-628-752-11
1-628-752-11
18
19
20
21
22
23
24
25
26
27
28
29
30
31
32
33
34
35
36
37
38

MA-33(NORMAL AUDIO PROCESS), RL-21(RELAY) SCHEMATIC DIAGRAM

—Ref. No. MA-33 and RL-21 BOARDS : 6,000 series—



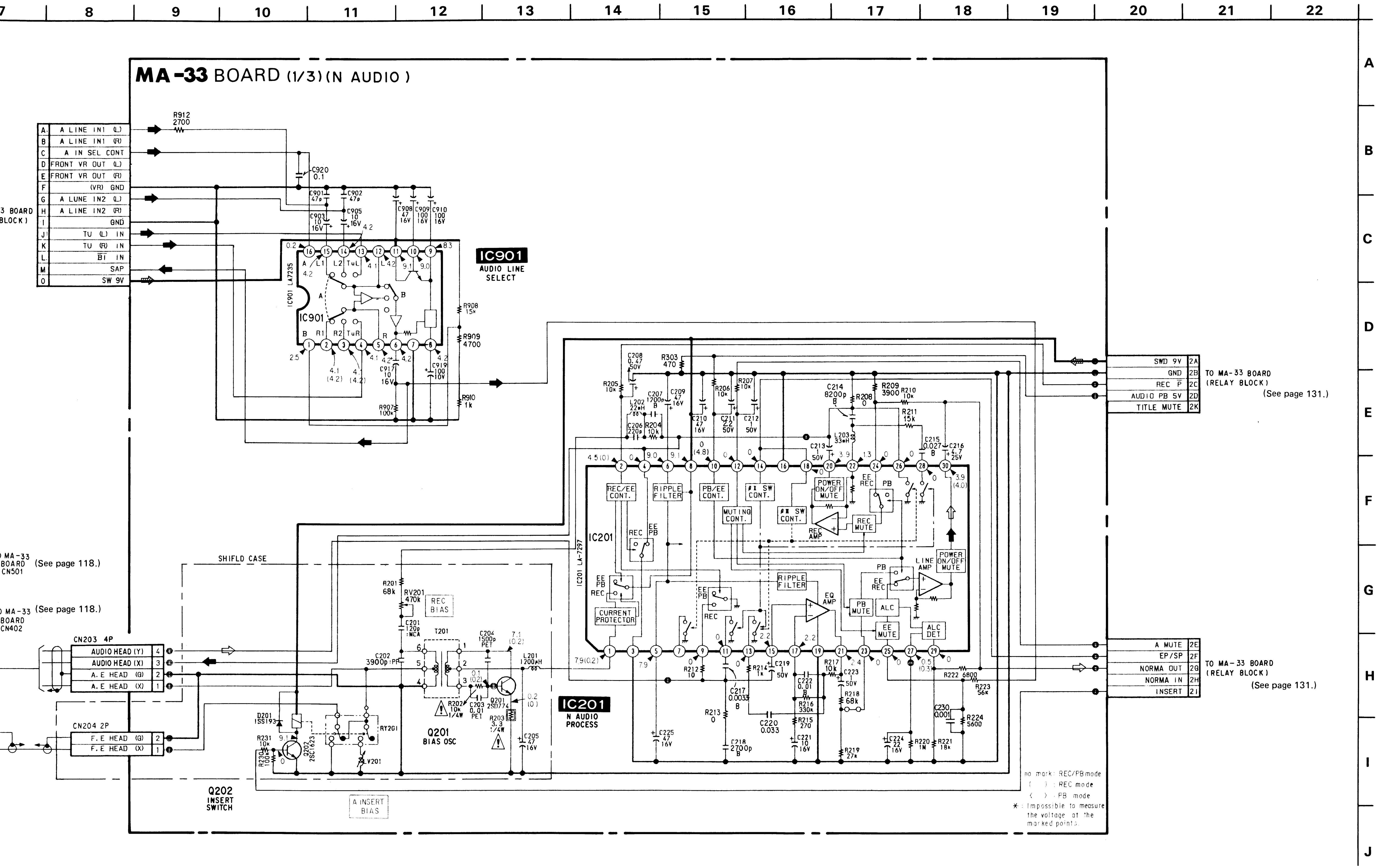
- Signal path

➡ : REC AUDIO Signal

⇨ : PB AUDIO Signal

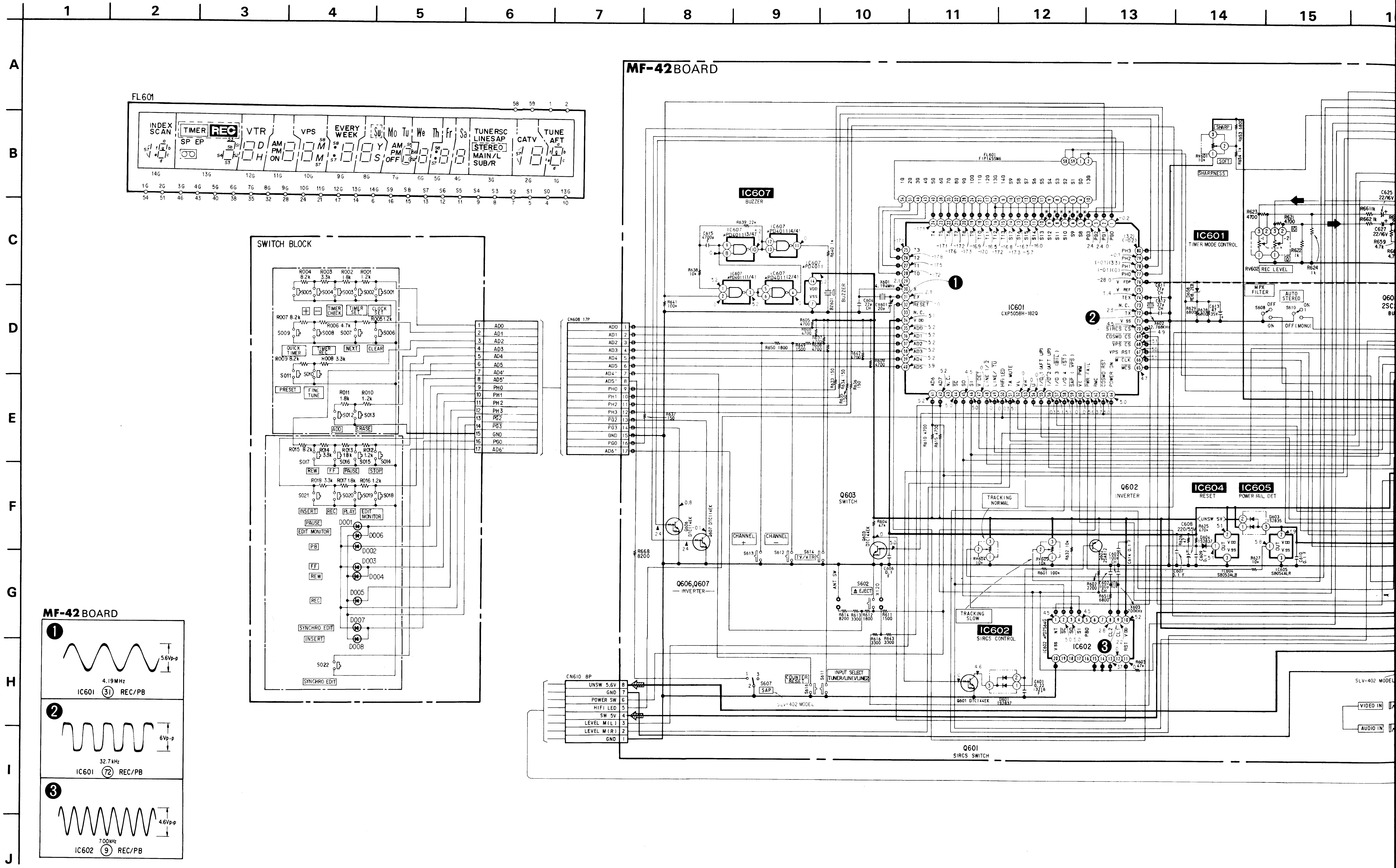
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
A
B
C
D
E
F
G
H
I
J
MA-33 BOARD (1/3)(N AUDIO)
A LINE IN1 (L)
A LINE IN1 (R)
A IN SEL CONT
FRONT VR OUT (L)
FRONT VR OUT (R)
(VR) GND
A LUNE IN2 (L)
A LINE IN2 (R)
GND
TU (L) IN
TU (R) IN
BI IN
SAP
SW 9V
(See page 131.) TO MA-33 BOARD (RELAY BLOCK)
R912 2700
C920 0.1
C901 47p
C902 47p
C903 10 16V
C905 10 16V
C908 47 16V
C909 100 16V
C910 100 16V
IC901 LA7235
IC901
AUDIO LINE SELECT
R908 15k
R909 4700
C917 10 16V
C919 100 10V
R907 100k
R910 1k
RL-21BOARD
DEW SENSOR
CN105 3P WHT
DEW SENS
GND
+5V
CN104 3P
TO MA-33 BOARD CN501 (See page 118.)
CTL HEAD
AUDIO HEAD
AUDIO ERASE HEAD
ACE BLOCK
CTL (X)
CTL (Y)
N.C
AUDIO HEAD(Y)
AUDIO HEAD(X)
AE HEAD(G)
AE HEAD
CN103 2P
TO MA-33 BOARD CN402 (See page 118.)
CN101 4P
A.E HEAD (G)
A.E HEAD (X)
CN203 4P
CN204 2P
F.E HEAD (G)
F.E HEAD (X)
FULL ERASE HEAD
FULL ERASE
SHIFLD CASE
R201 68k
RV201 470k
REC BIAS
C201 120p MCA
T201
C202 3900p PP
C204 1500p PET
R202 10k 1/4W
C203 0.01 PET
Q201 2SD774
R203 3.3 1/4W
L201 1200μH
C205 47 16V
Q201 BIAS OSC
D201 1SS193
R231 10k
R230 100k
Q202 2SC1623
RY201
LV201
Q202 INSERT SWITCH
A INSERT BIAS
IC201
N AUDIO PROCESS
IC201 LA-7297
C208 0.47 50V
R303 470
R205 10k
L202 22mH
C207 1700p
C209 47 16V
C206 220p
R204 10k
R206 10k
R207 10k
C210 47 16V
C211 22 50V
C212 1 50V
C214 8200p B
R208 0
L203 33mH
C213 1 50V
REC/EE CONT.
RIPPLE FILTER
PB/EE CONT.
MUTING CONT.
SW CONT.
POWER ON/OFF MUTE
REC AMP
REC MUTE
EE REC
REC PB
EE PB REC
CURRENT PROTECTOR
EQ AMP
PB MUTE
R212 10
R214 1k
C219 1 50V
C217 0.0033 B
R213 0
C218 2700p B
C220 0.033
C222 0.01 B
R216 330k
R215 270
C221 10 16V
R217 10k
C223 1 50V
R218 68k
R219 27k
C225 47 16V

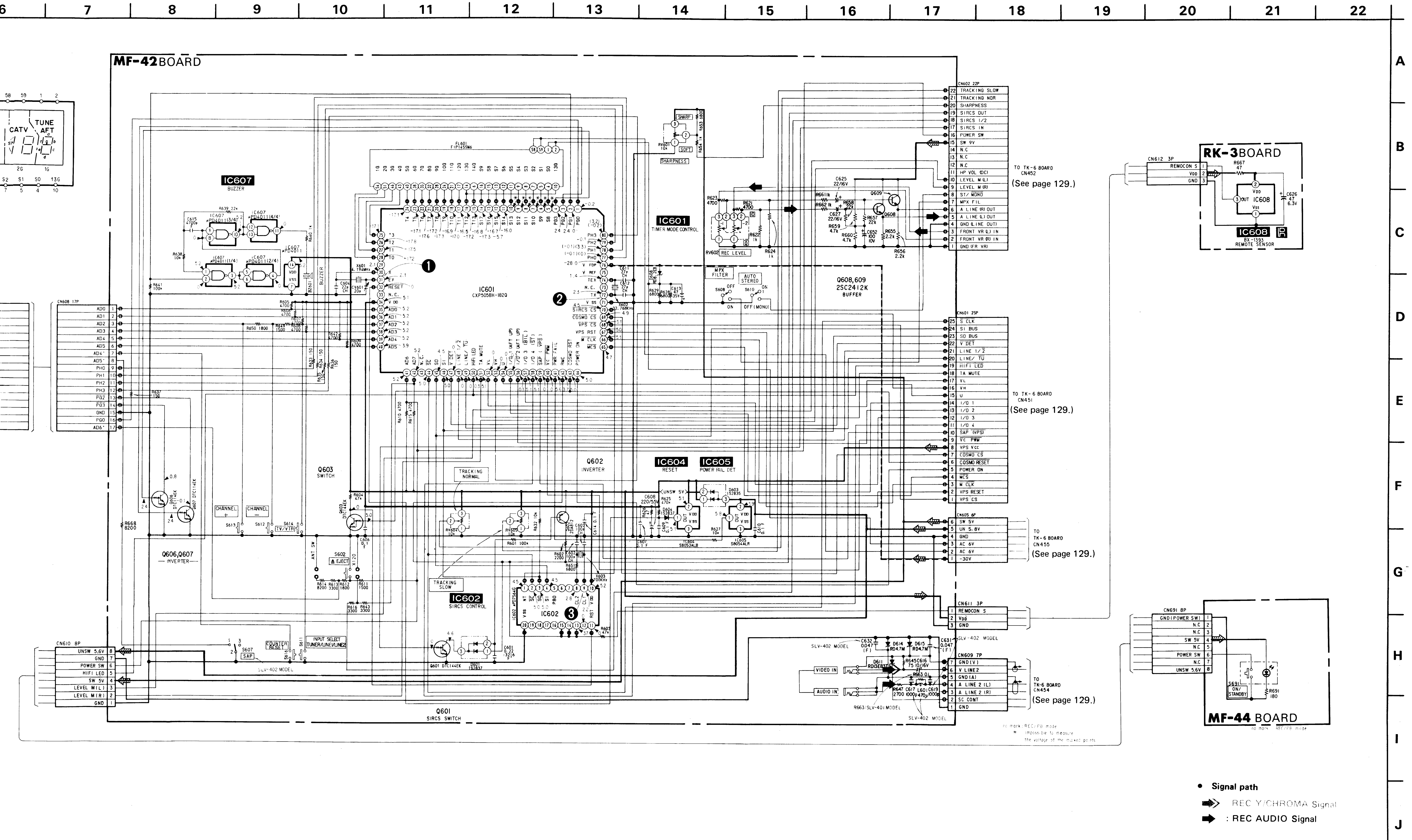
MA-33 BOARD (1/3) (N AUDIO)


A LINE IN1 (L)
A LINE IN1 (R)
A IN SEL CONT
FRONT VR OUT (L)
FRONT VR OUT (R)
(VR) GND
A LINE IN2 (L)
A LINE IN2 (R)
GND
TU (L) IN
TU (R) IN
BI IN
SAP
SW 9V
3 BOARD BLOCK)
IC901
AUDIO LINE SELECT
IC901 LA7235
R912 2700
C920 0.1
R908 15k
R909 4700
R910 1k
R907 100k
SWD 9V
GND
REC P
AUDIO PB 5V
TITLE MUTE
TO MA-33 BOARD (RELAY BLOCK)
(See page 131.)
A MUTE
EP/SP
NORMA OUT
NORMA IN
INSERT
IC201
N AUDIO PROCESS
IC201 LA7297
REC/EE CONT.
RIPPLE FILTER
PB/EE CONT.
#I SW CONT.
MUTING CONT.
POWER ON/OFF MUTE
REC AMP
REC MUTE
EQ AMP
PB MUTE
ALC
EE MUTE
ALC DET
LINE AMP
CURRENT PROTECTOR
SHIFLD CASE
TO MA-33 BOARD CN501 (See page 118.)
TO MA-33 BOARD CN402 (See page 118.)
CN203 4P
AUDIO HEAD (Y)
AUDIO HEAD (X)
A.E HEAD (G)
A.E HEAD (X)
CN204 2P
F.E HEAD (G)
F.E HEAD (X)
R201 68k
RV201 470k
REC BIAS
T201
Q201 BIAS OSC
Q201 2SD774
Q202 INSERT SWITCH
Q202 2SC1623
D201 1SS193
RY201
L201 1200μH
A INSERT BIAS
no mark : REC/PB mode
( ) : REC mode
( ) : PB mode
* : Impossible to measure the voltage at the marked points.

MF-42(TIMER, MODE CONTROL), MF-44(POWER SWITCH) RK-3(REMOTE CONTROL RECEIVER), SCHEMATIC DIAGRAM

—Ref. No. MF-42, MF-44 and RK-3 BOARDS : 8,000 series—


MF-42 BOARD
FL601
SWITCH BLOCK
CN608 17P
CN610 8P
IC607
BUZZER
IC601
TIMER MODE CONTROL
IC601 CXP5058H-182Q
IC602
SIRCS CONTROL
IC604
RESET
IC605
POWER FAIL DET
Q603
SWITCH
Q602
INVERTER
Q606,Q607
INVERTER
Q601
SIRCS SWITCH
TRACKING NORMAL
TRACKING SLOW
SLV-402 MODEL
MF-42 BOARD
❶
5.6Vp-p
4.19MHz
IC601 (31) REC/PB
❷
6Vp-p
32.7kHz
IC601 (72) REC/PB
❸
4.6Vp-p
700kHz
IC602 (9) REC/PB


MF-42 BOARD
IC607 BUZZER
IC601 TIMER MODE CONTROL
IC601 CXP5058H-182Q
FL601 FIP16SM6
IC602 SIRCS CONTROL
IC604 RESET
IC605 POWER FAIL DET
Q602 INVERTER
Q603 SWITCH
Q606,Q607 INVERTER
Q601 SIRCS SWITCH
Q608,609 2SC2412K BUFFER
SHARPNESS
REC LEVEL
MPX FILTER
AUTO STEREO
TRACKING NORMAL
TRACKING SLOW
CHANNEL +
CHANNEL −
TV/VTR
EJECT
SAP
COUNTER RESET
INPUT SELECT TUNER/LINE1/LINE2
VIDEO IN
AUDIO IN
SLV-402 MODEL
CN602 22P
22 TRACKING SLOW
21 TRACKING NOR
20 SHARPNESS
19 SIRCS OUT
18 SIRCS 1/2
17 SIRCS IN
16 POWER SW
15 SW 9V
14 N.C
13 N.C
12 N.C
11 HP VOL (DC)
10 LEVEL M(L)
9 LEVEL M(R)
8 ST/MONO
7 MPX FIL
6 A LINE (R) OUT
5 A LINE (L) OUT
4 GND (LINE OUT)
3 FRONT VR (L) IN
2 FRONT VR (R) IN
1 GND (FR VR)
TO TK-6 BOARD CN452 (See page 129.)
CN601 25P
25 S CLK
24 SI BUS
23 SO BUS
22 V DET
21 LINE 1/2
20 LINE/TU
19 HIFI LED
18 TA MUTE
17 VL
16 VH
15 U
14 I/O 1
13 I/O 2
12 I/O 3
11 I/O 4
10 SAP (VPS)
9 VC PWM
8 VPS VCC
7 COSMO CS
6 COSMO RESET
5 POWER ON
4 MCS
3 M CLK
2 VPS RESET
1 VPS CS
TO TK-6 BOARD CN451 (See page 129.)
CN605 6P
6 SW 5V
5 UN S.8V
4 GND
3 AC 6V
2 AC 6V
1 -30V
TO TK-6 BOARD CN455 (See page 129.)
CN611 3P
1 REMOCON S
2 VDD
3 GND
CN609 7P
7 GND(V)
6 V LINE2
5 GND(A)
4 A LINE 2 (L)
3 A LINE 2 (R)
2 SC CONT
1 GND
TO TK-6 BOARD CN454 (See page 129.)
CN610 8P
8 UNSW 5.6V
7 GND
6 POWER SW
5 HIFI LED
4 SW 5V
3 LEVEL M(L)
2 LEVEL M(R)
1 GND
CN608 17P
AD0 1
AD1 2
AD2 3
AD3 4
AD4 5
AD5 6
AD4' 7
AD5' 8
PH0 9
PH1 10
PH2 11
PH3 12
PG2 13
PG3 14
GND 15
PG0 16
AD6' 17
RK-3 BOARD
CN612 3P
REMOCON S 1
VDD 2
GND 3
IC608 BX-1393 REMOTE SENSOR
MF-44 BOARD
CN691 8P
GND(POWER SW) 1
N.C 2
N.C 3
SW 5V 4
N.C 5
POWER SW 6
N.C 7
UNSW 5.6V 8
S691 ON/STANDBY
no mark : REC/PB mode
* : impossible to measure the voltage at the marked points
❶
❷
❸

- Signal path

➡ : REC Y/CHROMA Signal

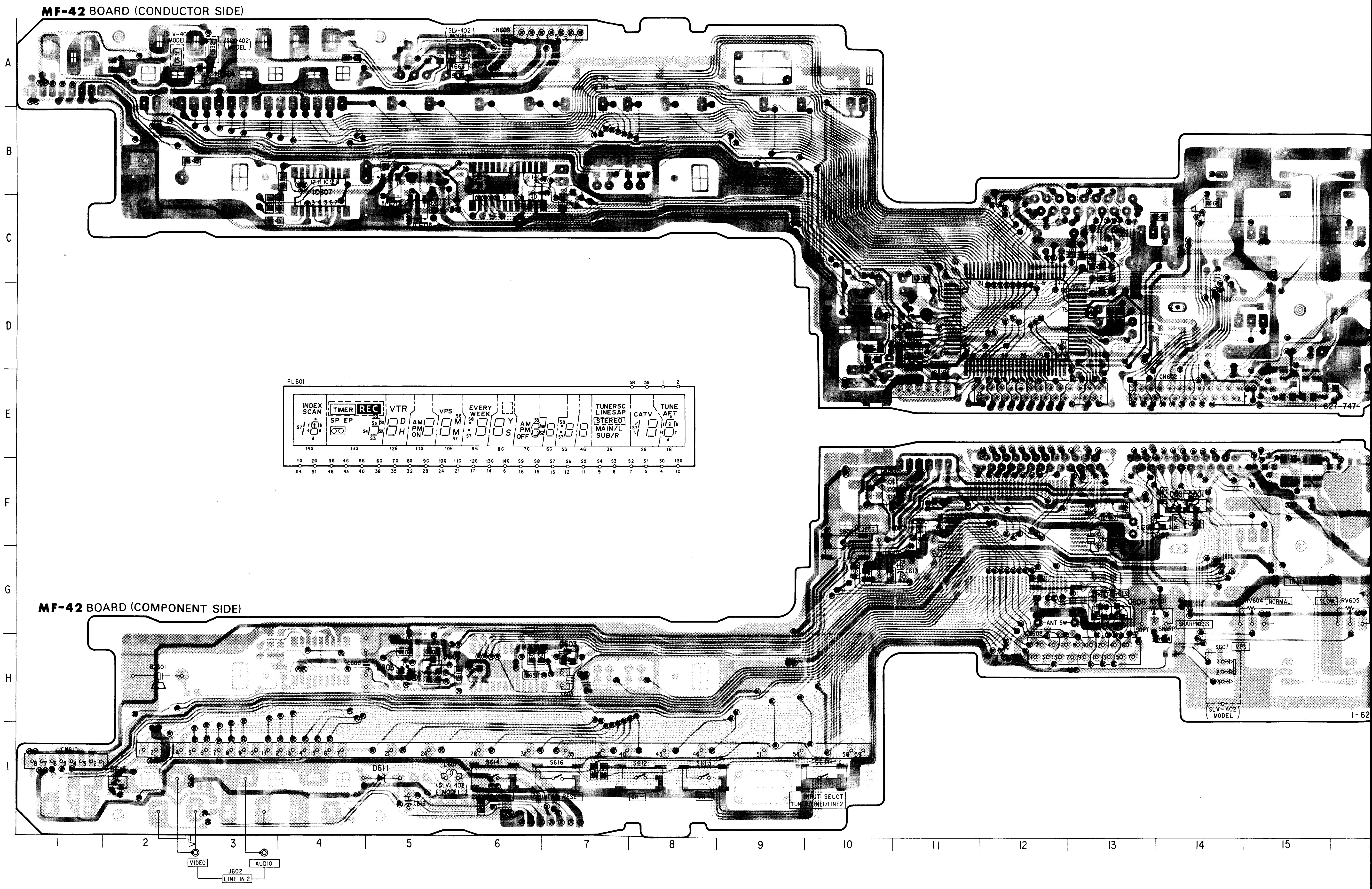
➡ : REC AUDIO Signal

TIMER, MODE CONTROL TIMER, MODE CONTROL

MF-42(TIMER, MODE CONTROL), MF-44(POWER SWITCH), RK-3(REMOTE CONTROL RECEIVER), PRINTED WIRING BOARDS

—Ref. No. MF-42, MF-44 and RK-3 BOARDS : 8,000 series—

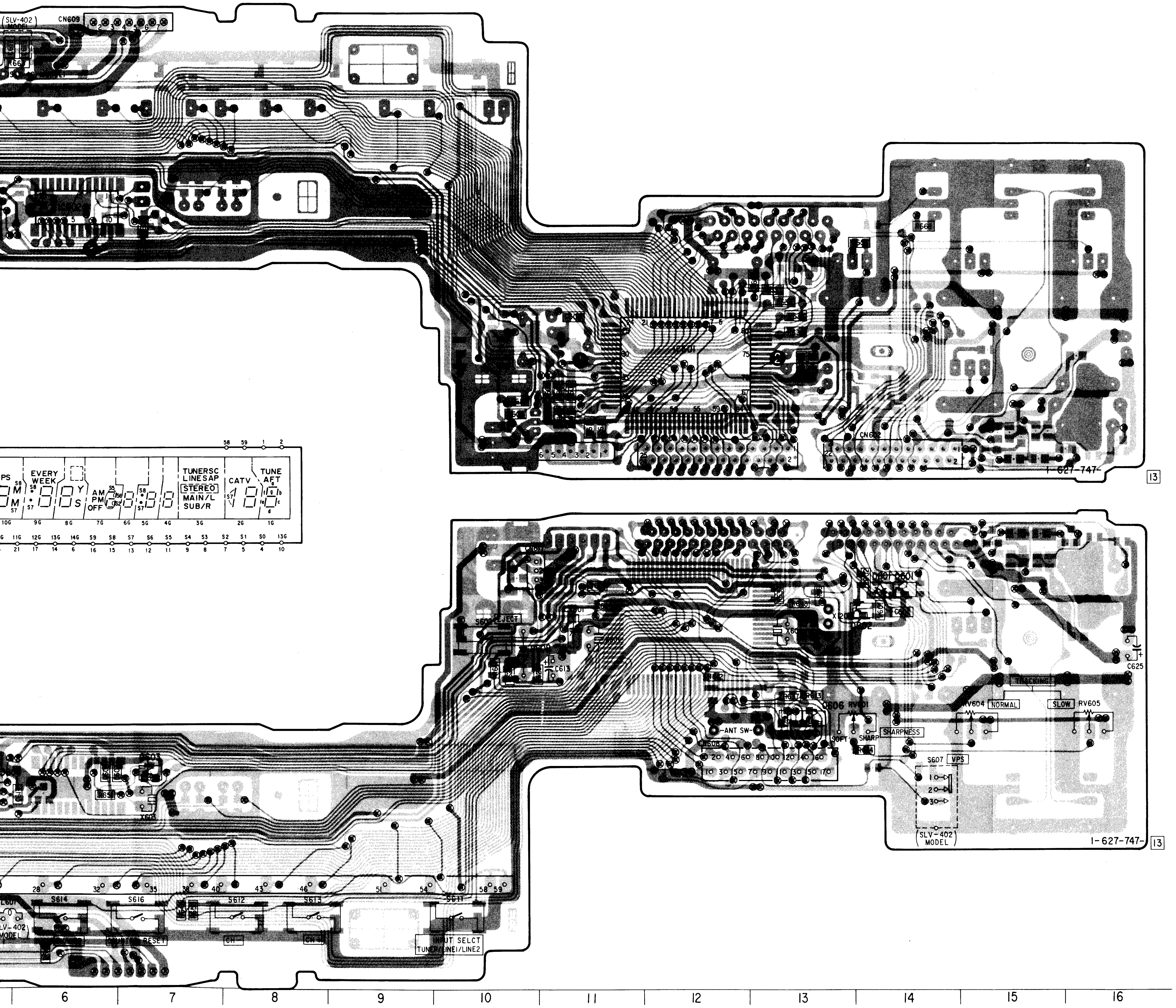
CN601	E-14
CN602	E-12
CN605	E-11
CN608	G12
CN609	A-6
CN610	I-1
CN611	F-10
CV601	F-11
D601	F-14
D603	H-5
D604	H-5
D608	F-10
D611	I-5
D614	A-3
D615	I-2
IC601	D-12
IC602	B-6
IC604	C-5
IC605	C-5
IC607	B-4
J602	I-3
Q601	F-14
Q602	F-14
Q603	H-7
Q606	G-13
Q607	G-13
RV601	G-14
RV604	G-15
RV605	G-16



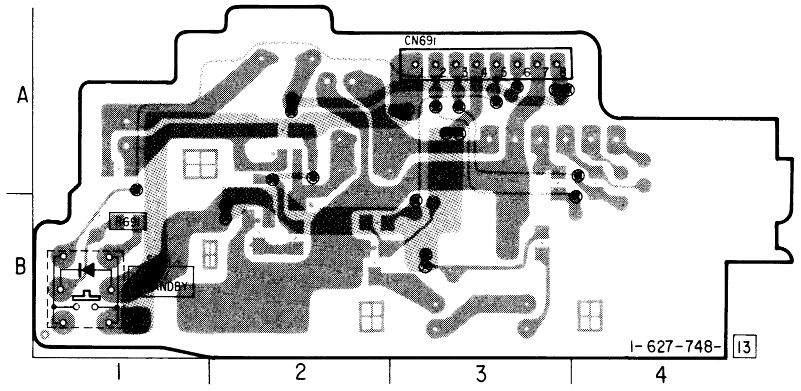
MF-42 BOARD (CONDUCTOR SIDE)

MF-42 BOARD (COMPONENT SIDE)

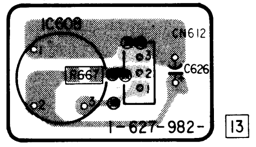
A
B
C
D
E
F
G
H
I
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
SLV-402 MODEL
CN609
IC607
IC604
IC605
IC601
CN602
I-627-747-
FL601
58
59
1
2
INDEX SCAN
TIMER
REC
SP EP
VTR
D
H
AM PM ON
VPS
M
M
EVERY WEEK
Y
S
AM PM OFF
TUNER SC LINE SAP
STEREO
MAIN/L
SUB/R
CATV
TUNE AFT
14G
13G
12G
11G
10G
9G
8G
7G
6G
5G
4G
3G
2G
1G
S0
S1
S2
S3
S4
S5
S6
S7
S8
S9
54
51
46
43
40
38
35
32
28
24
21
17
14
6
16
15
13
12
11
9
8
7
5
4
10
S603 EJECT
C613
X601
CN611
D608
Q601
Q602
TRACKING
RV604
NORMAL
SLOW
RV605
Q606
RV601
SOFT
SHARP
SHARPNESS
ANT SW
CN608
S607
VPS
I-62
BZ601
C600
Q603
X603
CN610
D615
D611
L601
C616
S614
S616
COUNTER RESET
S612
CH -
S613
CH +
S611
INPUT SELCT TUNER/LINE1/LINE2
VIDEO
AUDIO
J602
LINE IN 2


SLV-402
CN609
IC601
CN602
1-627-747-
13
TUNER SC
LINE SAP
EVERY WEEK
AM PM OFF
STEREO
MAIN/L
SUB/R
CATV
TUNE AFT
S602 EJECT
C613
C625
S606
RV601
ANT SW
SOFT
SHARP
SHARPNESS
RV604
NORMAL
SLOW
RV605
TRACKING
S607
VPS
SLV-402 MODEL
X601
S614
S616
RESET
S612
S613
CH
S611
INPUT SELCT
TUNER/LINE1/LINE2
6
7
8
9
10
11
12
13
14
15
16

MF-44 BOARD


CN691
STANDBY
1-627-748-
13
A
B
1
2
3
4

RK-3 BOARD

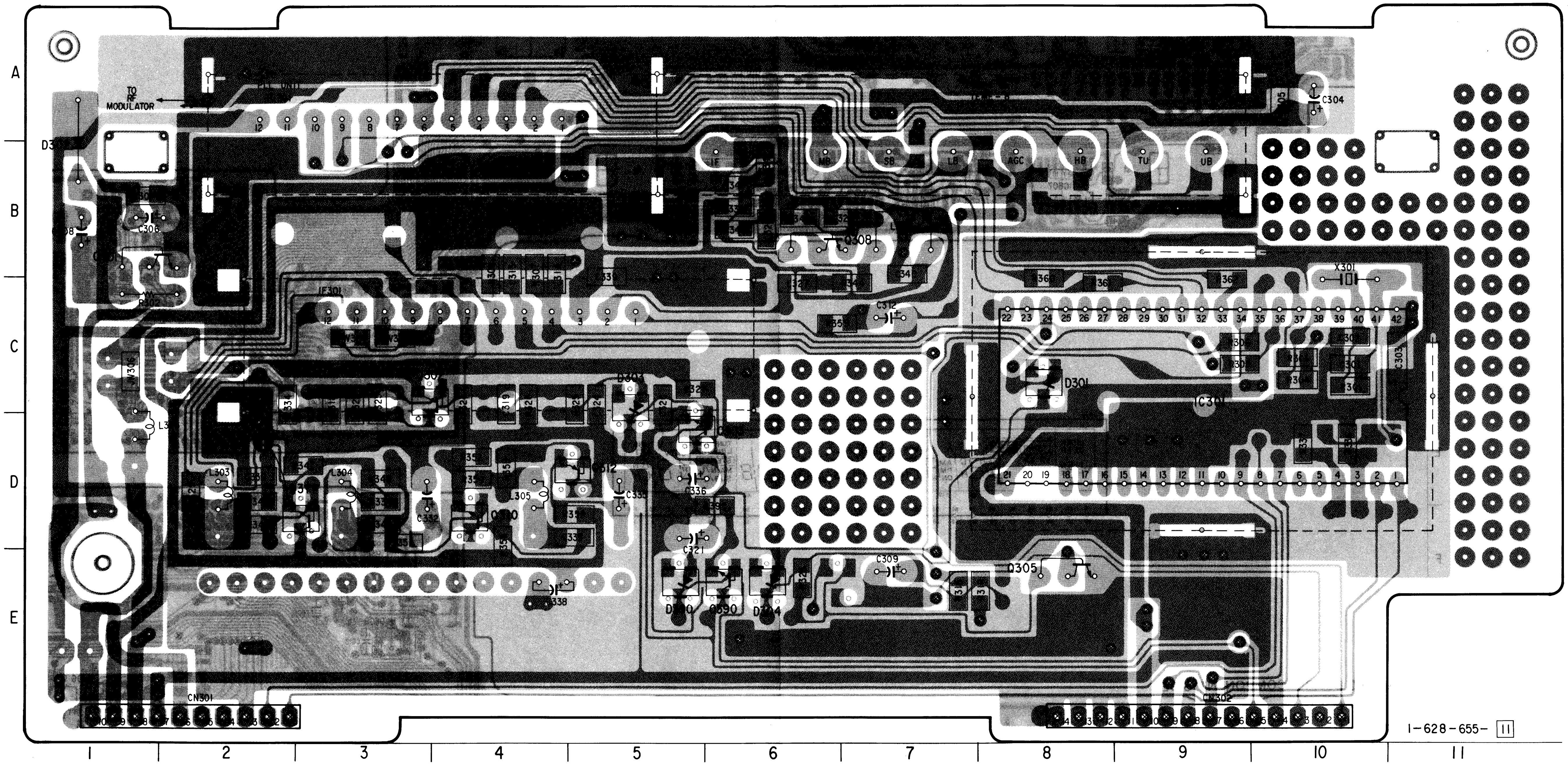

IC608
CN612
C626
1-627-982-
13

TU-97(TUNER) PRINTED WIRING BOARD

—Ref. No. TU-97 BOARD : 7,000 series—

CN301	E-2
CN302	E-9
D301	C-8
D302	B-1
D303	C-5
D304	E-6
D390	E-5
IC301	C-9
Q301	B-2
Q302	C-4
Q303	D-6
Q308	B-7
Q310	D-4
Q311	D-3
Q312	D-5
Q390	E-6

TU-97 BOARD

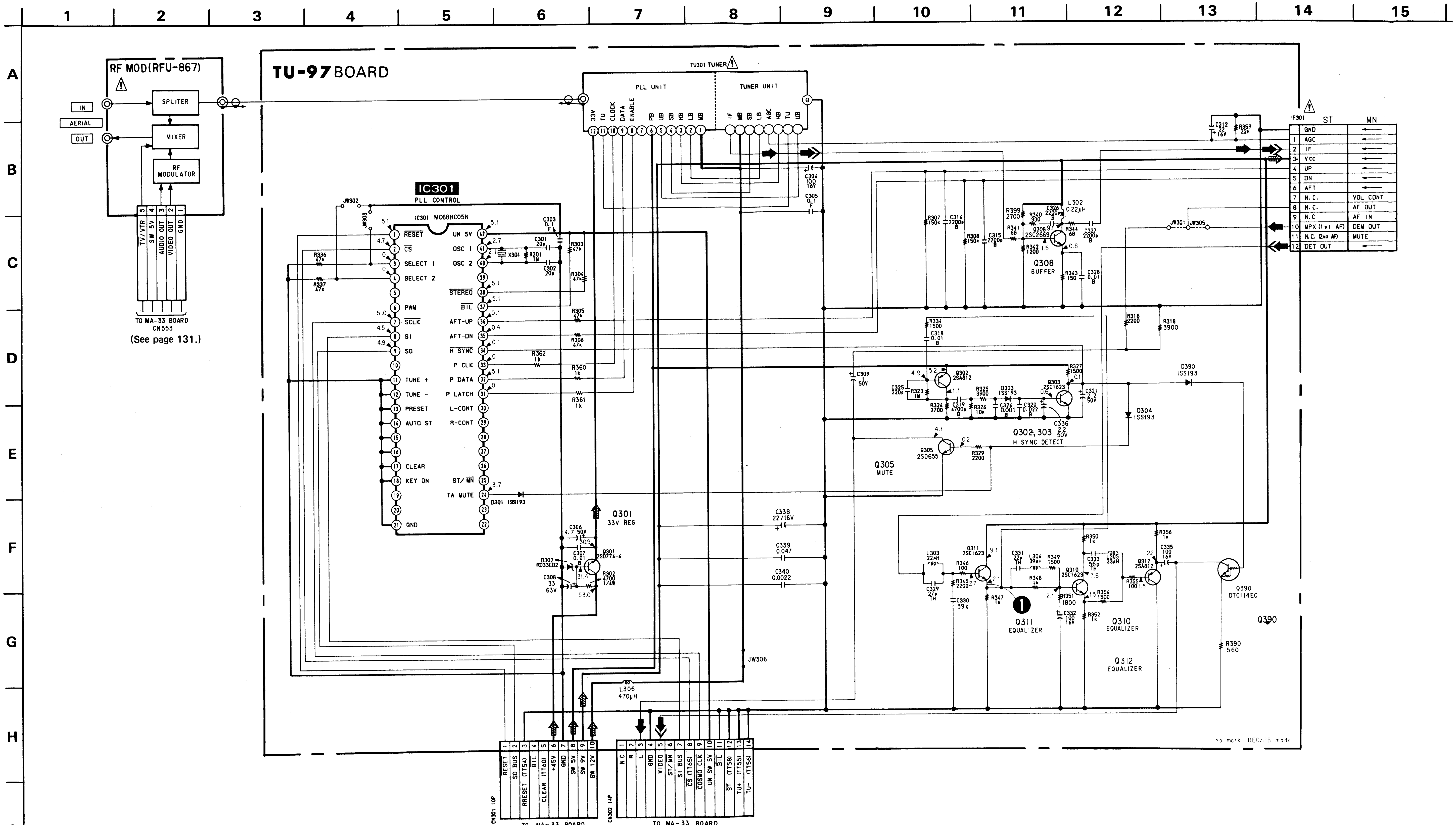


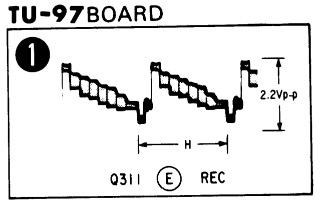
TO RF MODULATOR
IF
MB
SB
LB
AGC
HB
TU
UB
C304
X301
Q308
C312
IC301
D301
D303
C303
C306
L303
L304
L305
C332
C336
C321
C309
C338
Q305
D390
Q390
D304
CN301
CN302
1-628-655- 11
A
B
C
D
E
1
2
3
4
5
6
7
8
9
10
11

TUNER TUNER

TU-97(TUNER) SCHEMATIC DIAGRAM

—Ref. No. TU-97 BOARD : 7,000 series—


1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
A
B
C
D
E
F
G
H
I
J
RF MOD(RFU-867)
SPLITER
MIXER
RF MODULATOR
IN
AERIAL
OUT
TV/VTR
SW 5V
AUDIO OUT
VIDEO OUT
GND
TO MA-33 BOARD CN553
(See page 131.)
TU-97BOARD
TU301 TUNER
PLL UNIT
TUNER UNIT
33V
TU
CLOCK
DATA
ENABLE
PB
UB
SB
HB
LB
MB
IF
AGC
IC301
PLL CONTROL
IC301 MC68HC05N
RESET
CS
SELECT 1
SELECT 2
PWM
SCLK
SI
SO
TUNE +
TUNE -
PRESET
AUTO ST
CLEAR
KEY ON
GND
UN 5V
OSC 1
OSC 2
STEREO
BIL
AFT-UP
AFT-DN
H SYNC
P CLK
P DATA
P LATCH
L-CONT
R-CONT
ST/MN
TA MUTE
D301 1SS193
X301
Q301
33V REG
2SD774-4
D302 RD33EB2
Q308
BUFFER
2SC2669
L302 0.22µH
Q302 2SA812
Q303 2SC1623
Q302, 303
H SYNC DETECT
Q305 2SD655
MUTE
D303 1SS193
D304 1SS193
D390 1SS193
Q311 2SC1623
EQUALIZER
Q310 2SC1623
EQUALIZER
Q312 2SA812
EQUALIZER
Q390
DTC114EC
L303 22µH
L304 39µH
L305 33µH
L306 470µH
JW301
JW302
JW303
JW305
JW306
IF301
ST
MN
GND
AGC
IF
Vcc
UP
DN
AFT
N.C.
N.C.
N.C
MPX (1st AF)
N.C. (2nd AF)
DET OUT
VOL CONT
AF OUT
AF IN
DEM OUT
MUTE
CN301 10P
RESET
SD BUS
RRESET (TT54)
BIL
CLEAR (TT60)
+45V
GND
SW 5V
SW 9V
SW 12V
TO MA-33 BOARD CN551
(See page 131.)
CN302 14P
N.C.
R
L
GND
VIDEO
ST/MN
SI BUS
CS (TT65)
COSMO CLK
UN SW 5V
BIL
ST (TT58)
TU+ (TT55)
TU- (TT56)
TO MA-33 BOARD CN552
(See page 131.)
no mark : REC/PB mode


TU-97BOARD
❶
2.2Vp-p
H
Q311 Ⓔ REC

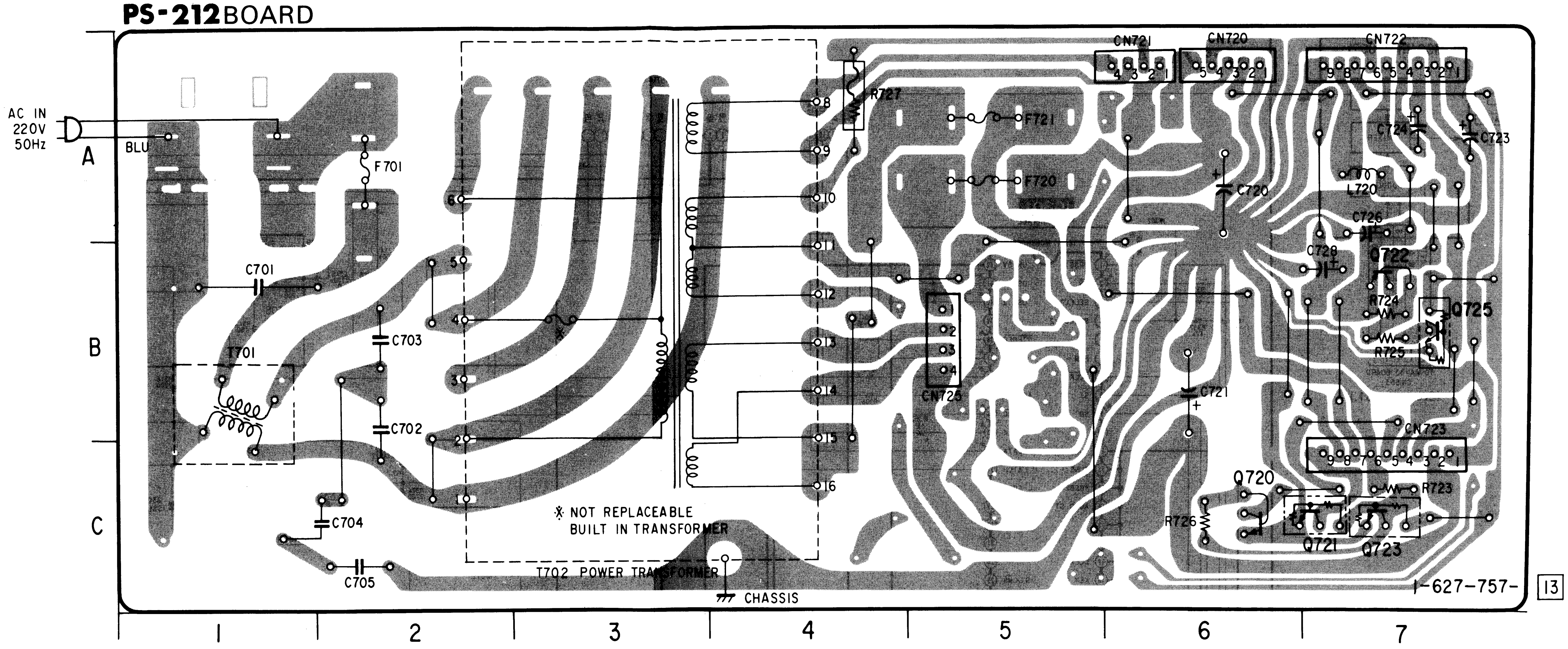
- Signal path
  - ➡ : REC Y/CHROMA Signal
  - ➡ : REC AUDIO Signal

PS-212(POWER SUPPLY), PS-213(REGULATOR), DS-34(RECT) PRINTED WIRING BOARDS

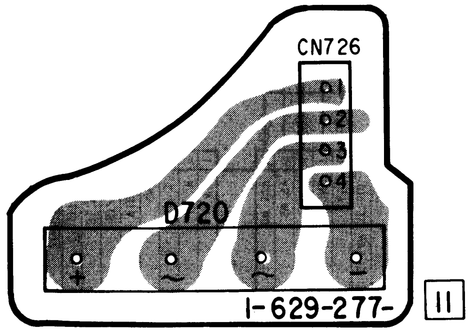
—Ref. No. PS-212, PS-213 and DS-34 BOARDS : 9,000 series—

CN720	A-6
CN721	A-6
CN722	A-7
CN723	C-7
CN725	B-5
Q720	C-6
Q721	C-7
Q722	B-7
Q723	C-7
Q725	B-7

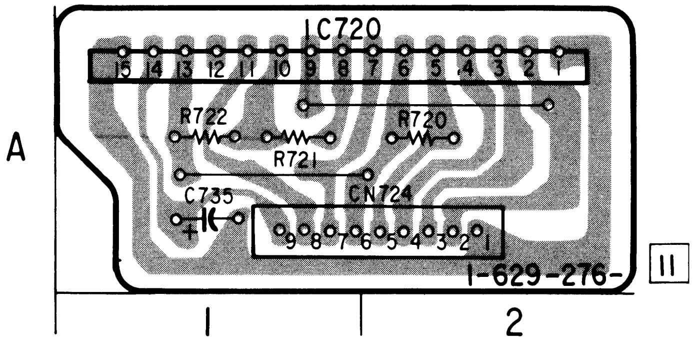
PS-212 BOARD


AC IN
220V
50Hz
BLU
A
B
C
F701
C701
T701
C703
C702
C704
C705
※ NOT REPLACEABLE
BUILT IN TRANSFORMER
T702 POWER TRANSFORMER
CHASSIS
R727
F721
F720
C720
C721
C722
CN721
CN720
CN722
CN723
CN725
C724
C723
L720
C726
C728
Q722
R724
R725
Q725
Q720
Q721
Q723
R723
R726
1-627-757-
13
1
2
3
4
5
6
7

DS-34 BOARD


CN726
D720
+
~
~
−
1-629-277-
11

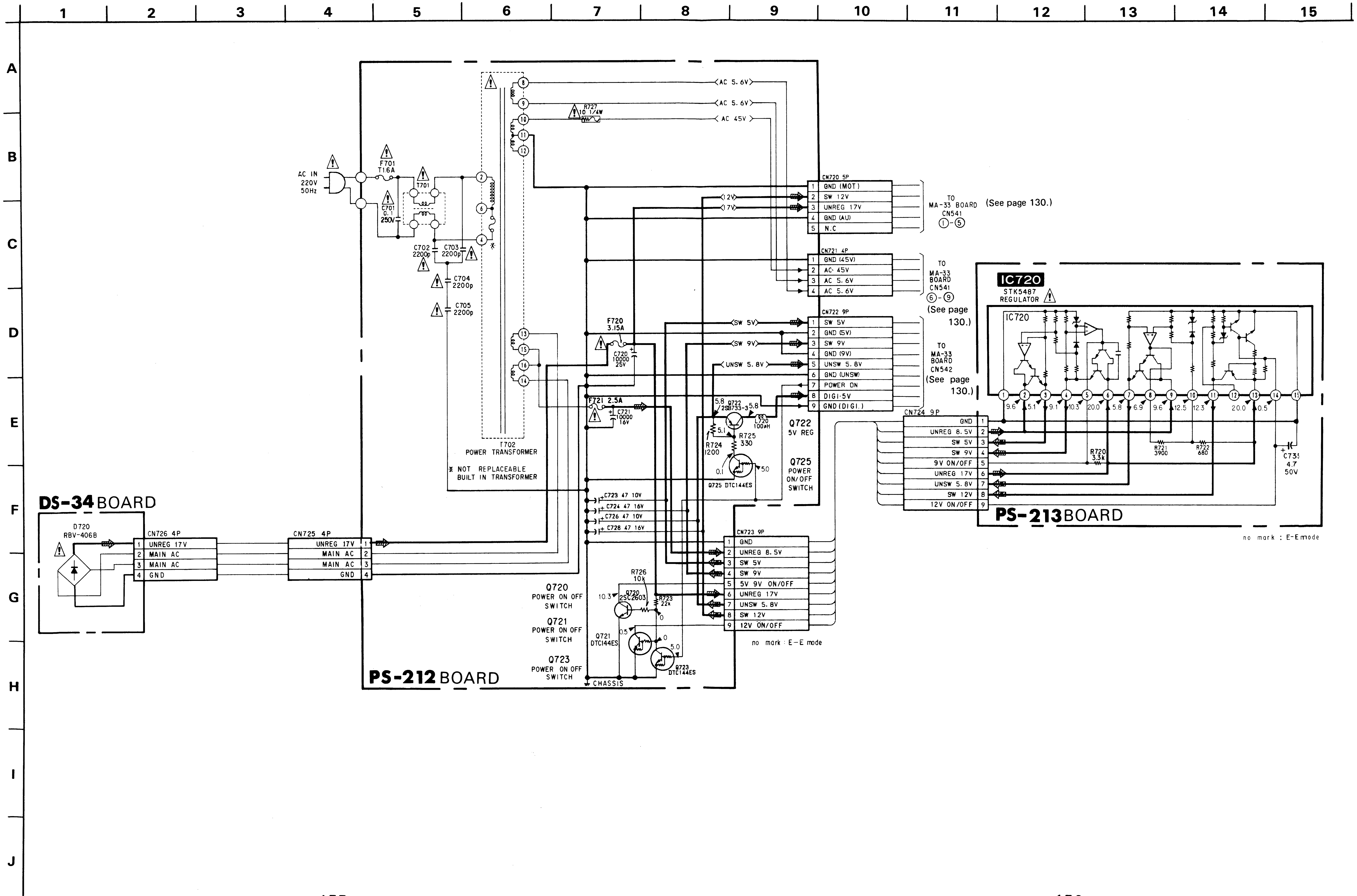
PS-213 BOARD


A
C720
R722
R721
R720
C735
CN724
1-629-276-
11
1
2

POWER POWER

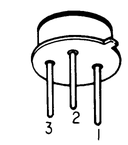
PS-212(POWER SUPPLY), PS-213(REGULATOR), DS-34(RECT) SCHEMATIC DIAGRAM

—Ref. No. PS-212, PS-213 and DS-34 BOARDS : 9,000 series—

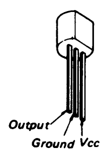

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
A
B
C
D
E
F
G
H
I
J
AC IN
220V
50Hz
F701
T1.6A
T701
C701
0.1
250V
C702
2200p
C703
2200p
C704
2200p
C705
2200p
R727
10 1/4W
AC 5.6V
AC 5.6V
AC 45V
12V
17V
T702
POWER TRANSFORMER
✳ NOT REPLACEABLE
BUILT IN TRANSFORMER
CN720 5P
GND (MOT)
SW 12V
UNREG 17V
GND (AU)
N.C
TO
MA-33 BOARD
CN541
①-⑤
(See page 130.)
CN721 4P
GND (45V)
AC- 45V
AC 5.6V
AC 5.6V
TO
MA-33
BOARD
CN541
⑥-⑨
(See page
130.)
CN722 9P
SW 5V
GND (5V)
SW 9V
GND (9V)
UNSW 5.8V
GND (UNSW)
POWER ON
DIGI·5V
GND (DIGI.)
TO
MA-33
BOARD
CN542
(See page
130.)
F720
3.15A
C720
10000
25V
F721 2.5A
C721
10000
16V
SW 5V
SW 9V
UNSW 5.8V
5.8
Q722
2SB733-3
5.8
L720
100μH
5.1
R724
1200
R725
330
0.1
5.0
Q725 DTC144ES
Q722
5V REG
Q725
POWER
ON/OFF
SWITCH
C723 47 10V
C724 47 16V
C726 47 10V
C728 47 16V
DS-34 BOARD
D720
RBV-406B
CN726 4P
UNREG 17V
MAIN AC
MAIN AC
GND
CN725 4P
UNREG 17V
MAIN AC
MAIN AC
GND
Q720
POWER ON OFF
SWITCH
Q721
POWER ON OFF
SWITCH
Q723
POWER ON OFF
SWITCH
R726
10k
10.3
Q720
2SC2603
R723
22k
0
Q721
DTC144ES
0.5
0
5.0
Q723
DTC144ES
CHASSIS
PS-212 BOARD
CN723 9P
GND
UNREG 8.5V
SW 5V
SW 9V
5V 9V ON/OFF
UNREG 17V
UNSW 5.8V
SW 12V
12V ON/OFF
no mark : E-E mode
IC720
STK5487
REGULATOR
IC720
9.6
5.1
9.1
10.3
20.0
5.8
6.9
9.6
12.5
12.3
20.0
0.5
CN724 9P
GND
UNREG 8.5V
SW 5V
SW 9V
9V ON/OFF
UNREG 17V
UNSW 5.8V
SW 12V
12V ON/OFF
R720
3.3k
R721
3900
R722
680
C731
4.7
50V
PS-213 BOARD
no mark : E-E mode

4-3. SEMICONDUCTORS

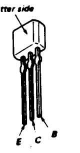
BX-1393



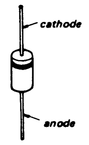
S-8053ALB


Output
Ground Vcc

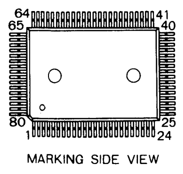
2SC2785


letter side
E C B

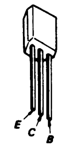
1SS106


cathode
anode

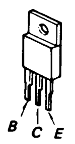
CXP5058H-182
CXP80116-062Q


64
65
41
40
80
1
25
24
MARKING SIDE VIEW

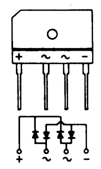
2SA1115-F
2SC2669-0
2SD655-F
DTC144ES



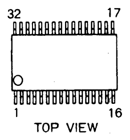
2SD1666-R



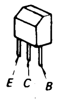
RBV-406B



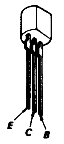
M50455-106FP


32
17
1
16
TOP VIEW

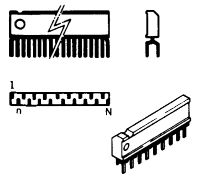
2SB733-3
2SB734-T-3
2SD774-4



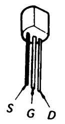
2SD655-F



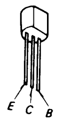
M5M4C500L-10



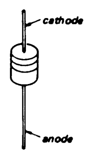
2SK105A-30



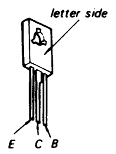
2SB739-2
2SD1468S-6
2SD788-3TZ



11ES2
1SS119
RD11ESB2
RD13ESB2
RD30ESB2
RD6.2ESB2
RD8.2ESB2


cathode
anode

2SB772-P


letter side
E C B

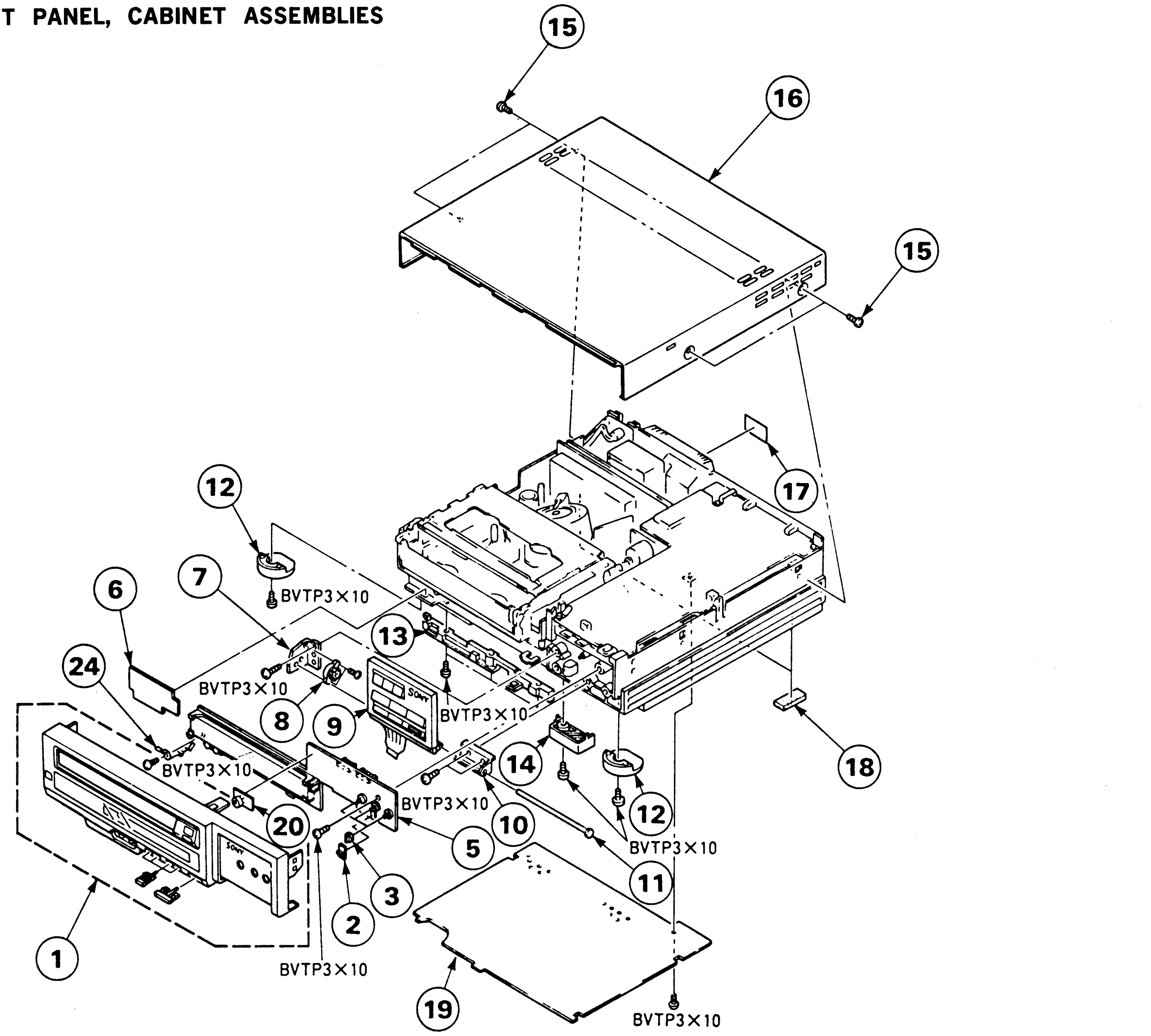
SECTION 5
EXPLODED VIEWS

NOTE:

- The mechanical parts with no reference number in the exploded views are not supplied.
- The construction parts of an assembled part are indicated with a collation number in the remark column.
- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- Due to standardization, parts with part number suffix -XX and -X may be different from the parts specified in the components used on the set.
- Color Indication of Appearance Parts
  Example:
  (RED) . . . KNOB, BALANCE (WHITE)
  ↑ ↑
  Cabinet's Color Parts' Color

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.

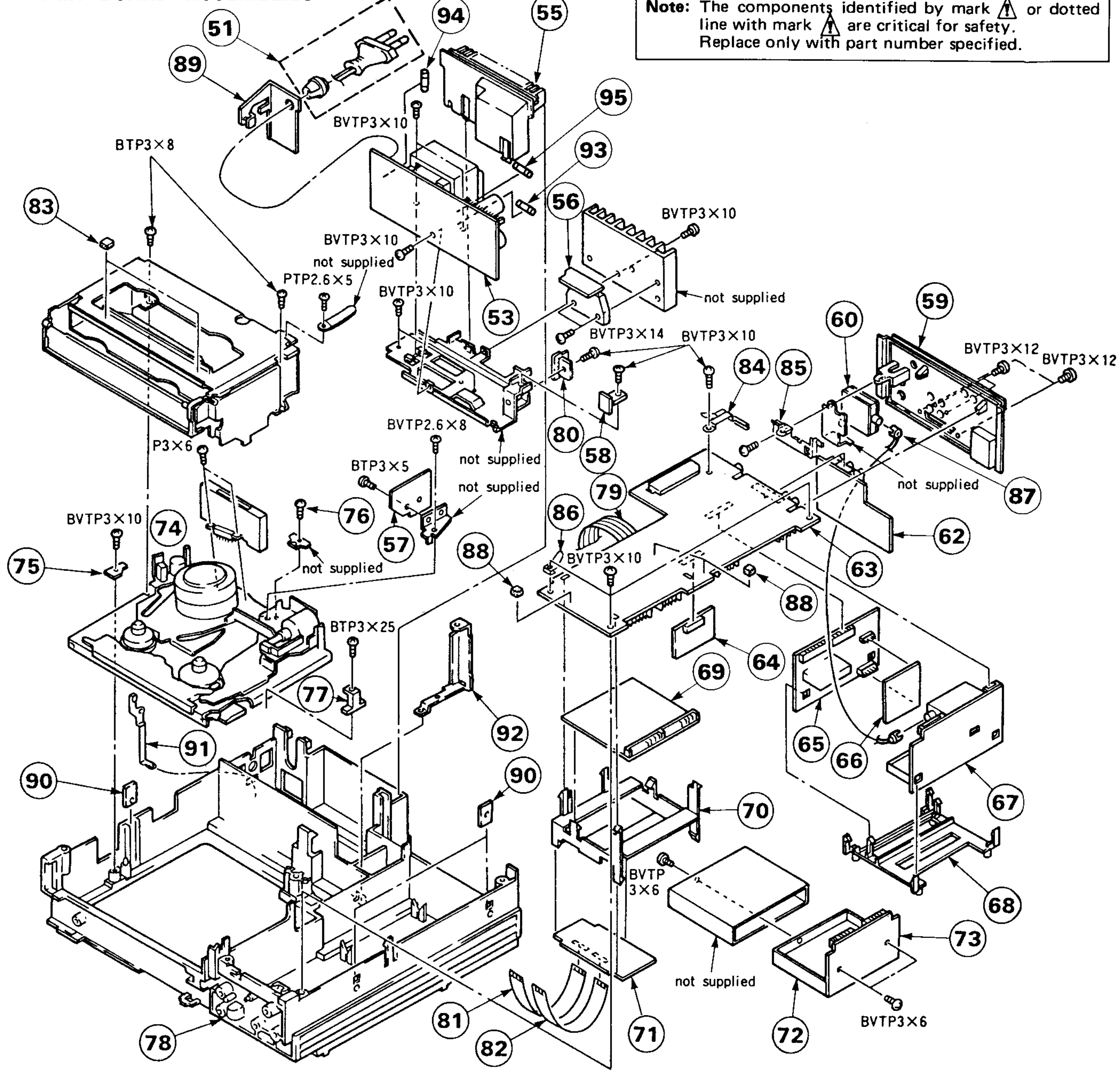
5-1. FRONT PANEL, CABINET ASSEMBLIES


15
16
15
17
12
6
7
BVTP3×10
13
24
BVTP3×10
8
9
BVTP3×10
BVTP3×10
14
12
18
20
BVTP3×10
10
5
BVTP3×10
11
3
2
1
BVTP3×10
19
BVTP3×10

No.	Part No.	Description	Remark
1	X-3727-725-1	PANEL ASSY, FRONT (SLV-402)	
	X-3727-726-2	PANEL ASSY, FRONT (SLV-401)	
2	3-727-718-01	KNOB, SLIDE (SLV-402)	
3	3-727-737-01	KNOB, TRACK CONTROL	
5	*A-6725-660-A	MF-42 BOARD, COMPLETE (SLV-402)	
	*A-6725-661-A	MF-42 BOARD, COMPLETE (SLV-401)	
6	*1-627-748-13	MF-44 BOARD	
7	*3-727-717-01	BRACKET (LEFT), DOOR	
8	3-319-224-21	DAMPER, SMALL	
9	1-466-008-61	SWITCH BLOCK, CONTROL (SLV-401)	
	1-466-008-51	SWITCH BLOCK, CONTROL (SLV-402)	
10	*3-727-734-01	BRACKET (RIGHT), DOOR	
11	*3-727-716-01	SHAFT, DOOR	
12	3-727-747-01	INSULATOR	
13	*3-727-752-01	HOLDER, MF	
14	*3-727-738-01	STOPPER, DOOR	
15	4-886-821-21	SCREW, M3 CASE STOPPER	
16	*3-727-759-11	CASE, UPPER	
17	*3-733-301-01	LABEL, MODEL NUMBER (SLV-402)	
	*3-729-994-01	LABEL, MODEL NUMBER (SLV-401)	
18	3-727-720-01	FOOT, RUBBER	
19	*X-3727-734-1	PLATE (PAL) ASSY, BOTTOM	
20	*A-6729-795-A	RK-3 BOARD, COMPLETE	
24	X-3727-733-1	PLATE ASSY, GROUND, FRONT	

5-2. MAIN BOARD ASSEMBLIES

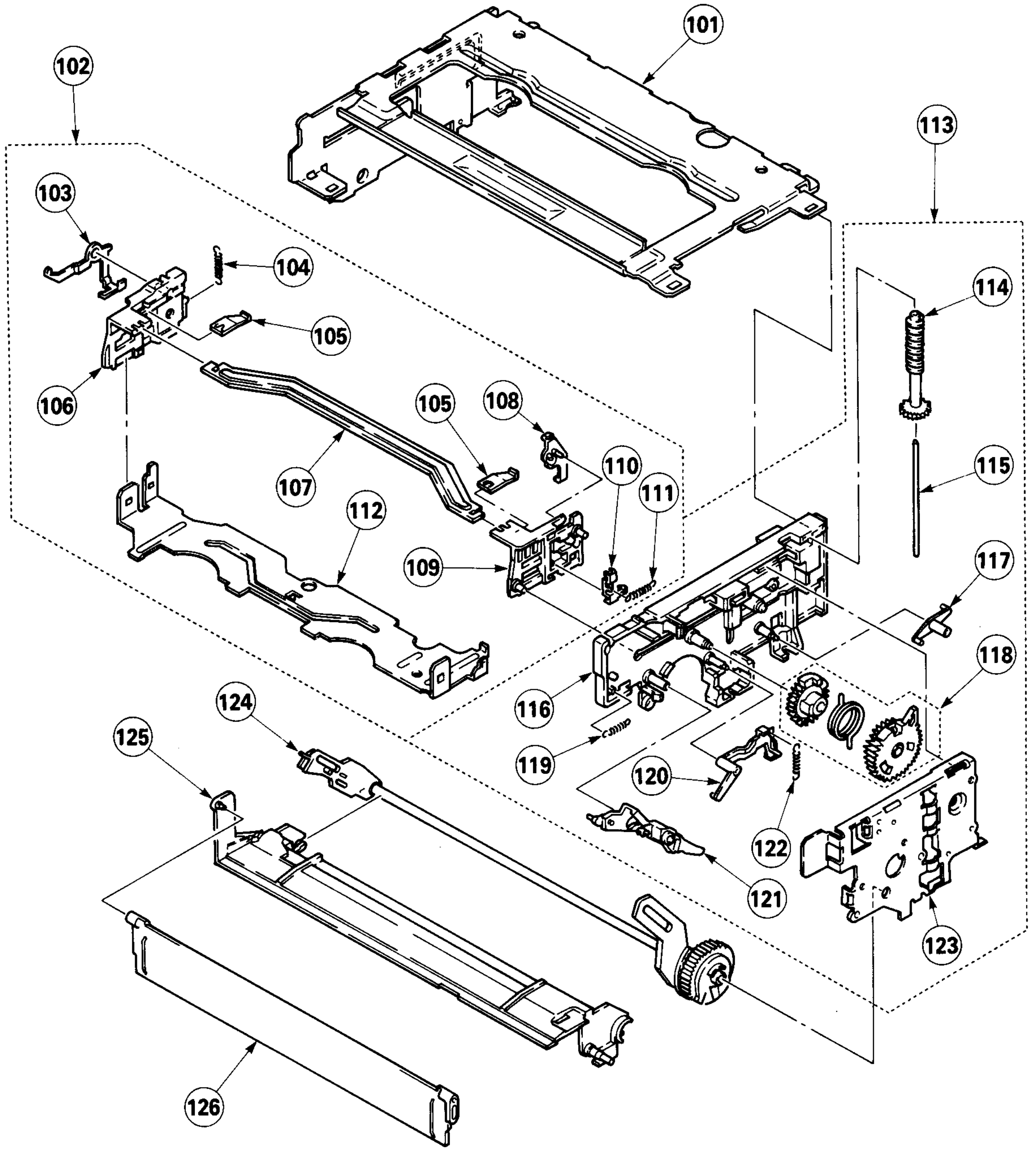
Note: The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.



(51)
(89)
(94)
(55)
(95)
(93)
BVTP3×10
BTP3×8
(83)
(56)
BVTP3×10
BVTP3×10
not supplied
PTP2.6×5
BVTP3×10
(53)
not supplied
BVTP3×14
BVTP3×10
(60)
(59)
BVTP3×12
BVTP3×12
(84)
(85)
(80)
(58)
BVTP2.6×8
not supplied
P3×6
BTP3×5
not supplied
(79)
not supplied
(87)
BVTP3×10
(74)
(76)
(86)
(62)
(75)
(57)
not supplied
(88)
BVTP3×10
(63)
(88)
BTP3×25
(64)
(69)
(77)
(92)
(65)
(66)
(91)
(67)
(90)
(90)
(70)
(68)
BVTP 3×6
(73)
not supplied
BVTP3×6
(81)
(71)
(72)
(78)
(82)

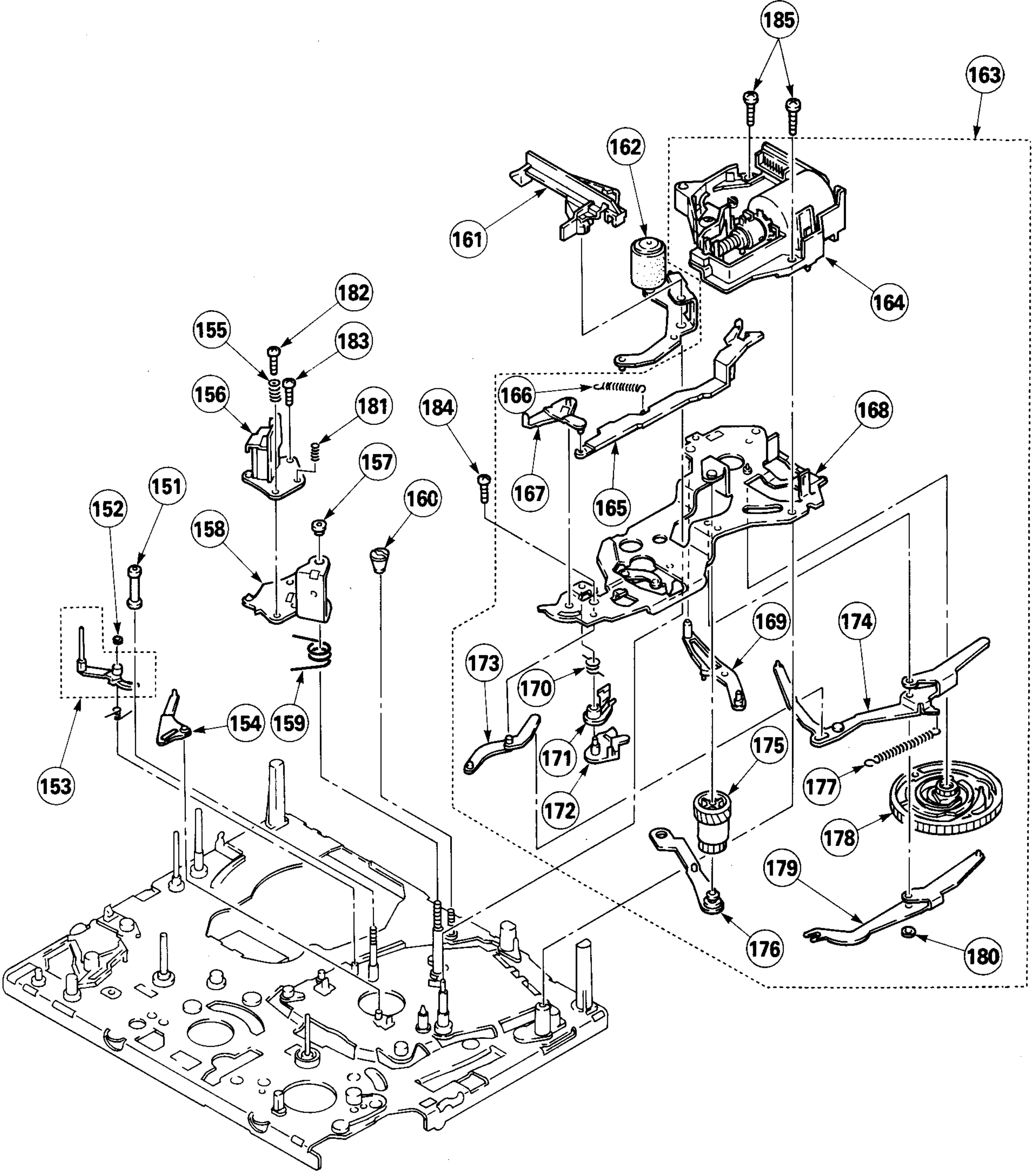
No.	Part No.	Description	Remark
51	⚠.1-551-908-71	CORD, POWER, EULO PLUG (AC250V, AC2.5A) (SLV-401)	
	⚠.1-574-418-11	CORD, POWER, EULO PLUG (AC250V, AC2.5A) (SLV-402)	
53	*A-6722-390-A	PS-212 BOARD, COMLETE	
54	⚠.1-449-488-11	TRANSFORMES, POWER	
55	*3-727-749-01	COVER, POWER	
56	*1-629-276-11	PS-213 BOARD	
57	*1-627-854-11	RL-21 BOARD	
58	*1-628-753-11	TR-32 BOARD	
59	X-3727-732-1	PLATE ASSY, JACK	
60	⚠.1-464-829-11	MODULATOR, RF (RFU-867)	
62	*A-6729-817-A	IO-14 BOARD, COMPLETE	
63	*A-6717-517-A	MA-33 BOARD, COMPLETE (SLV-402)	
	*A-6717-518-A	MA-33 BOARD, COMPLETE (SLV-401)	
64	*A-6729-815-A	TM-95 BOARD, COMPLETE (SLV-402)	
65	*A-6727-015-A	YC-55 BOARD, COMPLETE (SLV-402)	
	*A-6727-020-A	YC-55 BOARD, COMPLETE (SLV-401)	
66	*A-6726-016-A	CD-12 BOARD, COMPLETE	
67	*A-6721-296-A	TU-97 BOARD, COMPLETE	
68	3-727-754-02	HOLDER, PC BOARD	
69	*A-6727-026-A	DA-12 BOARD, COMPLETE	
70	3-727-755-02	HOLDER, DG	
71	*1-627-754-11	TK-6 BOARD	
72	*A-6727-027-A	DB-3 BOARD, COMPLETE	
73	*A-6729-830-A	DI-17 BOARD, COMPLETE	
74	*A-6727-001-A	RP-63 BOARD, COMPLETE	
75	3-727-723-01	RETAINER (LEFT), MD	
76	3-486-138-00	SCREW	
77	3-727-721-01	RETAINER (RIGHT), MD	
78	*3-727-757-03	FRAME, MOLD	
79	1-574-159-11	CABLE, FLAT (1MM PITCH) 30P	
80	*1-629-277-11	DS-34 BOARD	
81	1-574-161-11	CABLE, FLAT (1MM PITCH) 25P	
82	1-574-160-11	CABLE, FLAT (1MM PITCH) 22P	
83	9-911-840-XX	RUBBER (B)	
84	*3-729-906-02	PLATE (MA), GROUND	
85	*3-727-788-01	PLATE, GROUND, I/O	
86	X-3727-724-1	PLATE ASSY, GROUND	
87	*1-558-924-71	CABLE, PIN	
88	*3-323-474-01	CUSHION, RUBBER	
89	*3-727-745-21	BRACKET, BUSHING	
90	*3-727-726-01	STOPPER, CASE	
91	*3-727-787-01	PLATE, GROUND, PS	
92	*3-727-746-01	BRACKET, PC BOARD	
93	⚠.1-532-237-00	FUSE, TIME-LAG	
94	⚠.1-532-259-00	FUSE, TIME-LAG	
95	⚠.1-532-286-00	FUSE, TIME-LAG	

5-3. FL CASSETTE COMPARTMENT ASSEMBLY


101
102
103
104
105
106
107
105
108
110
111
112
109
113
114
115
117
116
118
119
120
122
121
123
124
125
126

Ref.No	Part No.	Description	Remark
101	*H-7412-551-H	BRACKET-SIDE (L)	
102	H-7412-562-H	HOLDER, CASSETTE	103-111
103	H-7412-944-H	ARM	
104	H-6300-996-H	SPRING	
105	H-7412-952-H	SPRING	
106	H-6896-673-H	HOLDER, CASSETTE (L)	
107	H-7428-113-H	HOLDER, STAY	
108	H-6897-001-H	ARM	
109	H-6896-664-H	HOLDER, CASSETTE (R)	
110	H-6897-531-H	ARM	
111	H-6555-043-H	SPRING	
112	H-7412-595-H	HOLDER BASE, CASSETTE	
113	H-7412-571-H	BRACKET, SIDE (R) AS	114-123
114	H-6435-571-H	WORM	
115	*H-4508-221-H	WORM SHAFT	
116	*H-6896-683-H	BRACKET, SIDE (R)	
117	H-6896-622-H	ARM-DOOR	
118	H-6896-971-H	WORM WHEEL ASSY	
119	H-6323-724-H	SPRING	
120	H-6897-041-H	ARM-SWITCH	
121	H-6896-632-H	ARM-SWITCH	
122	H-6302-474-H	SPRING	
123	*H-7412-583-H	BRACKET-GEAR	
124	H-7580-791-H	SHAFT ASSY	
125	H-6896-653-H	HOLDER-FRONT	
126	3-727-750-41	DOOR, FL	

5-4. CHASSIS ASSEMBLY (1)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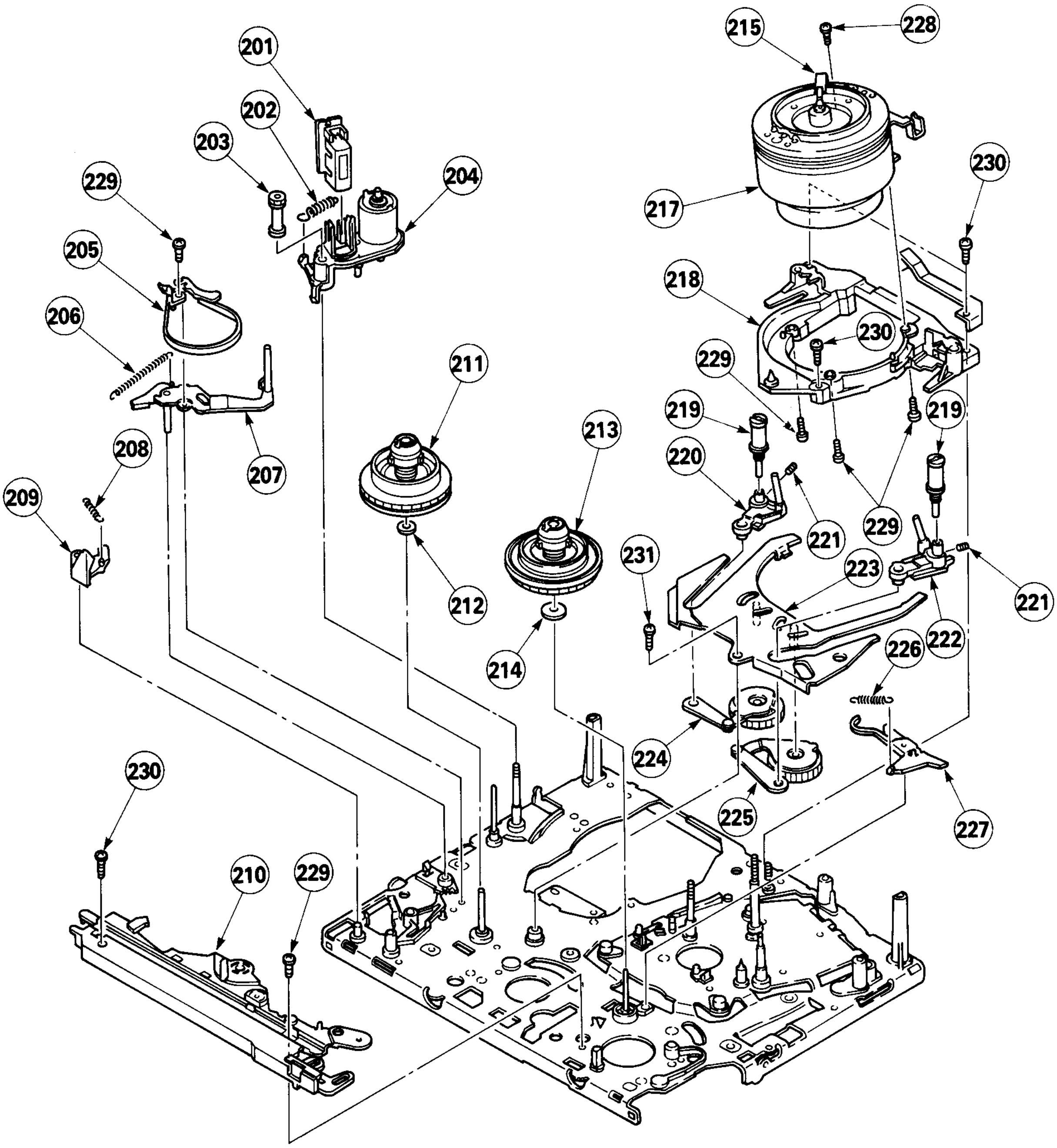
Ref.No	Part No.	Description	Remark
151	H-4508-235-H	GUIDE	
152	H-7786-623-H	POLYSLIDER WASHER	
153	H-6976-371-H	ARM	
154	H-6898-472-H	ARM, IDLE	
155	H-6304-906-H	SPRING	
156	H-5443-431-H	HEAD-AUDIO CONTROL	
157	H-7785-673-H	NUT	
158	H-7412-853-H	BASE-ACE HEAD	
159	H-6522-752-H	SPRING	
160	H-6911-101-H	SCREW	
161	H-6897-264-H	HOLDER	
162	H-6975-761-H	PRESSER ROLLER	
163	H-7429-672-H	BRACKET	164-180
164	H-6896-894-H	HOLDER, MOTOR	
165	H-6897-251-H	ARM	
166	H-6555-483-H	SPRING	
167	H-6896-852-H	ARM	
168	H-7398-631-H	BRACKET	
169	H-6976-551-H	ARM	
170	H-6551-151-H	SPRING	
171	H-6804-792-H	BRAKE	
172	H-6897-241-H	ARM	
173	H-6897-271-H	ARM	
174	H-7428-072-H	ARM, OPERATION	
175	H-6434-861-H	WORM WHEEL	
176	H-7412-892-H	ARM	
177	H-6555-052-H	SPRING	
178	H-6897-065-H	GEAR, MODE	
179	H-7412-881-H	ARM	
180	H-7799-012-H	WASHER	
181	3-701-509-00	SCREW	
182	7-682-551-04	SCREW (3X14)	
183	7-682-548-04	SCREW 3MMDX8MM	
184	7-685-646-79	SCREW (3X8)	
185	7-685-648-79	SCREW (3X12)	

5-5. CHASSIS ASSEMBLY (2)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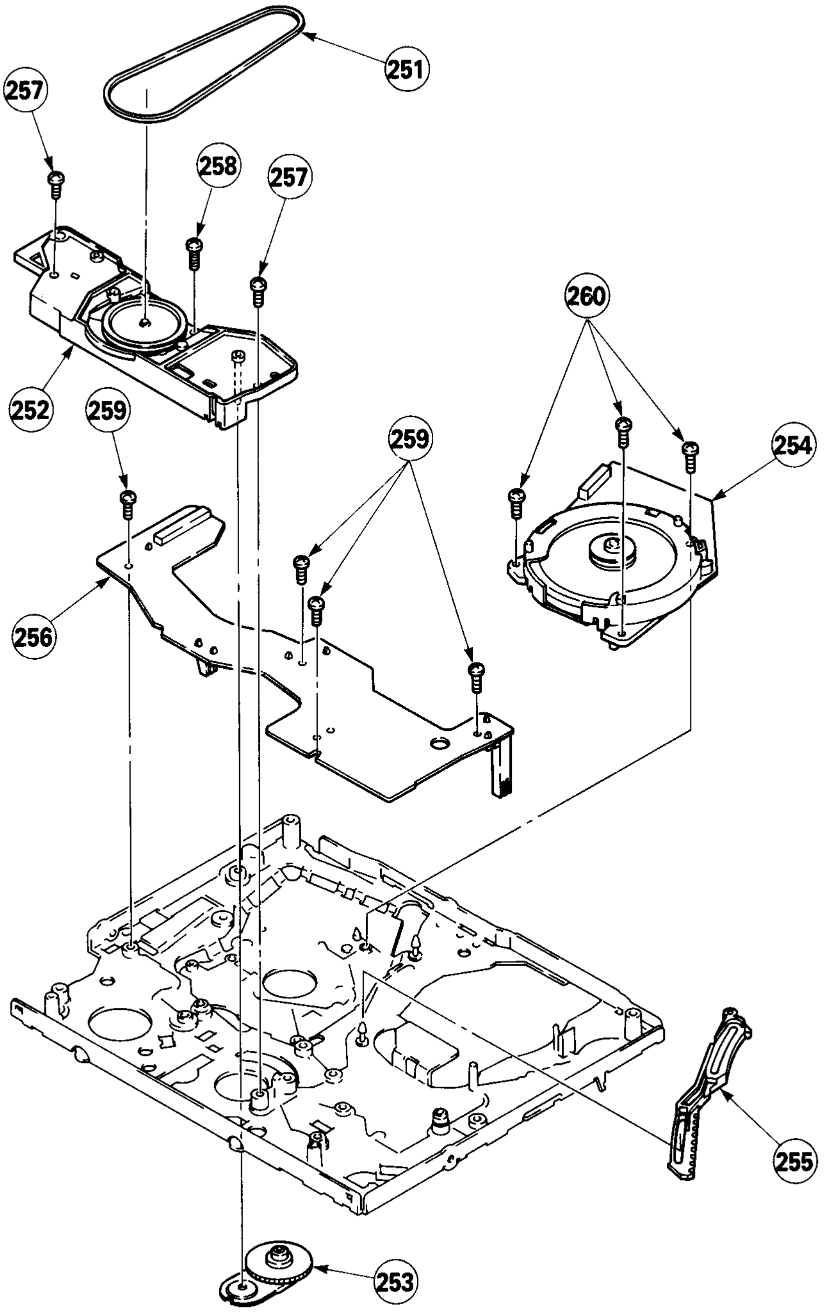
Ref.No	Part No.	Description	Remark
201	H-5445-841-H	HEAD-FULL ERASE	
202	H-6555-431-H	SPRING	
203	H-4508-237-H	GUIDE, TAPE	
204	H-6897-475-H	ARM, IMPEDANCE	
205	H-7413-665-H	HOLDER-BAND	
206	H-6555-444-H	SPRING	
207	H-7412-863-H	ARM	
208	H-6555-061-H	SPRING	
209	H-6896-751-H	ARM	
210	H-6804-273-H	BLOCK, SLIDER	
211	H-6415-532-H	RELL-SUPPLY	
212	H-7789-123-H	POLYSLIDER WASHER	
213	H-6415-542-H	RELL-TAKE UP	
214	H-7789-122-H	POLYSLIDER WASHER	
215	H-5792-633-H	BRUSH	

Ref.No	Part No.	Description	Remark
217	1-550-458-11	DRUM ASSY	
218	*H-6976-013-H	DRUM BASE	
219	H-6344-741-H	GUIDE ROLLER	
220	H-6911-551-H	GUIDE ROLLER BASE (IN)	
221	H-7785-941-H	SCREW	
222	H-6911-571-H	GUIDE ROLLER BASE (OUT)	
223	*H-7412-822-H	PLATE	
224	H-7412-816-H	GEAR, LOADING (L)	
225	H-7412-806-H	GEAR, LOADING (R)	
226	H-6555-501-H	SPRING	
227	H-6896-912-H	BRAKE	
228	H-8711-405-H	SCREW (3X5)	
229	7-682-548-04	SCREW (3X8)	
230	7-682-550-04	SCREW (3X12)	
231	7-685-646-79	SCREW	

5-6. CHASSIS ASSEMBLY (3)



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Ref.No	Part No.	Description	Remark
251	H-6351-554-H	BELT	
252	H-6896-951-H	CULUTCH BASE ASSY	
253	H-6897-094-H	ARM, FF/REW	
254	8-835-324-01	MOTOR, CAPSTAN (BHF-3113A)	
255	H-6434-851-H	RACK	
256	H-7023-061-H	SENSOR BOARD	
257	7-685-135-19	SCREW	
258	7-682-551-04	SCREW (3X14)	
259	7-685-646-79	SCREW	
260	7-685-647-79	SCREW	

SECTION 6
ELECTRICAL PARTS LIST

NOTE:

- Due to standardization, replacements in the parts list may be different from the parts specified in the diagrams or the components used on the set.
- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- If there are two or more same circuits in a set such as a stereophonic machine, only typical circuit parts may be indicated and capacitors and resistors in other same circuits may be omitted.

CAPACITORS:
MF: μF, PF: μμF.

RESISTORS
- All resistors are in ohms.
- F: nonflammable

COILS
- MMH: mH, UH: μH

SEMICONDUCTORS
In each case, U: μ, for example:
UA...: μA..., UPA...: μPA...,
UPC...: μPC, UPD...: μPD...

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

When indicating parts by reference number, please include the board name.

Ref.No	Part No.	Description			Remark
	*A-6717-518-A	MA-33 BOARD, COMPLETE ********************** (SLV-401)			(Ref No. 6000 Series)
	*A-6717-517-A	MA-33 BOARD, COMPLETE ********************** (SLV-402)			
	*3-314-051-00	CLAMP, LEAD			
	*3-695-075-01	PIN, LEAD, COATING			
		CAPACITOR			
C201	1-109-675-11	MICA	120PF	5%	500V
C202	1-136-558-11	FILM	0.0039MF	10%	630V
C203	1-130-483-00	MYLAR	0.01MF	5%	50V
C204	1-130-473-00	MYLAR	0.0015MF	5%	50V
C205	1-124-589-11	ELECT	47MF	20%	16V
C206	1-163-125-00	CERAMIC CHIP	220PF	5%	50V
C207	1-163-143-00	CERAMIC CHIP	0.0012MF	10%	50V
C208	1-124-465-00	ELECT	0.47MF	20%	50V
C209	1-124-589-11	ELECT	47MF	20%	16V
C210	1-124-589-11	ELECT	47MF	20%	16V
C211	1-124-257-00	ELECT	2.2MF	20%	50V
C212	1-124-438-00	ELECT	1MF	20%	50V
C213	1-124-438-00	ELECT	1MF	20%	50V
C214	1-163-020-00	CERAMIC CHIP	0.0082MF	5%	50V
C215	1-163-986-00	CERAMIC CHIP	0.027MF	10%	25V
C216	1-126-094-11	ELECT	4.7MF	20%	25V
C217	1-163-015-00	CERAMIC CHIP	0.0033MF	5%	50V
C218	1-163-014-00	CERAMIC CHIP	0.0027MF	10%	50V
C219	1-124-438-00	ELECT	1MF	20%	50V
C220	1-163-989-11	CERAMIC CHIP	0.033MF	5%	25V
C221	1-126-157-11	ELECT	10MF	20%	16V
C222	1-163-021-00	CERAMIC CHIP	0.01MF	5%	50V
C223	1-124-438-00	ELECT	1MF	20%	50V
C224	1-124-234-00	ELECT	22MF	20%	16V
C225	1-124-589-11	ELECT	47MF	20%	16V
C230	1-163-009-11	CERAMIC CHIP	0.001MF	10%	50V
C301	1-163-009-11	CERAMIC CHIP	0.001MF	10%	50V
C302	1-163-009-11	CERAMIC CHIP	0.001MF	10%	50V
C303	1-124-438-00	ELECT	1MF	20%	50V
C401	1-126-157-11	ELECT	10MF	20%	16V
C403	1-126-157-11	ELECT	10MF	20%	16V
C404	1-124-589-11	ELECT	47MF	20%	16V
C406	1-124-229-00	ELECT	33MF	20%	6.3V
C407	1-124-479-11	ELECT	330MF	20%	25V
C408	1-126-157-11	ELECT	10MF	20%	16V
C409	1-126-157-11	ELECT	10MF	20%	16V
C410	1-126-157-11	ELECT	10MF	20%	16V
C411	1-124-463-00	ELECT	0.1MF	20%	50V
C412	1-163-077-00	CERAMIC CHIP	0.1MF		50V
C413	1-136-017-00	CERAMIC CHIP	0.0047MF		50V
C414	1-124-234-00	ELECT	22MF	20%	16V
C417	1-163-035-00	CERAMIC CHIP	0.047MF		50V
C419	1-126-103-11	ELECT	470MF	20%	16V
C420	1-126-096-11	ELECT	10MF	20%	25V
C421	1-130-495-00	MYLAR	0.1MF	5%	50V
C423	1-124-234-00	ELECT	22MF	20%	16V
C424	1-124-119-00	ELECT	330MF	20%	16V
C425	1-130-483-00	MYLAR	0.01MF	5%	50V
C426	1-124-257-00	ELECT	2.2MF	20%	50V
C427	1-130-493-00	MYLAR	0.068MF	5%	50V
C428	1-126-157-11	ELECT	10MF	20%	16V
C429	1-124-463-00	ELECT	0.1MF	20%	50V
C430	1-126-101-11	ELECT	100MF	20%	16V
C431	1-124-589-11	ELECT	47MF	20%	16V
C432	1-124-589-11	ELECT	47MF	20%	16V
C433	1-126-157-11	ELECT	10MF	20%	16V
C434	1-124-589-11	ELECT	47MF	20%	16V
C435	1-124-464-11	ELECT	0.22MF	20%	50V
C437	1-163-109-00	CERAMIC CHIP	47PF	5%	50V
C439	1-126-157-11	ELECT	10MF	20%	16V
C440	1-163-135-00	CERAMIC CHIP	560PF	10%	50V
C441	1-124-589-11	ELECT	47MF	20%	16V
C444	1-126-157-11	ELECT	10MF	20%	16V
C501	1-124-119-00	ELECT	330MF	20%	16V
C502	1-163-021-00	CERAMIC CHIP	0.01MF		50V
C503	1-163-077-00	CERAMIC CHIP	0.1MF		50V
C504	1-126-157-11	ELECT	10MF	20%	16V
C505	1-163-077-00	CERAMIC CHIP	0.1MF		50V
C506	1-163-021-00	CERAMIC CHIP	0.01MF		50V
C507	1-163-021-00	CERAMIC CHIP	0.01MF		50V
C508	1-124-438-00	ELECT	1MF	20%	50V
C509	1-163-096-00	CERAMIC CHIP	13PF	5%	50V
C510	1-163-096-00	CERAMIC CHIP	13PF	5%	50V
C511	1-163-105-00	CERAMIC CHIP	33PF	5%	50V
C512	1-163-105-00	CERAMIC CHIP	33PF	5%	50V
C513	1-163-105-00	CERAMIC CHIP	33PF	5%	50V
C514	1-163-105-00	CERAMIC CHIP	33PF	5%	50V
C515	1-163-035-00	CERAMIC CHIP	0.047MF		50V
C516	1-163-035-00	CERAMIC CHIP	0.047MF		50V
C517	1-126-154-11	ELECT	47MF	20%	6.3V
C518	1-124-478-71	ELECT	100MF	20%	25V
C519	1-163-035-00	CERAMIC CHIP	0.047MF		50V
C520	1-163-077-00	CERAMIC CHIP	0.1MF		50V
C522	1-163-038-00	CERAMIC CHIP	0.1MF		25V
C551	1-163-021-00	CERAMIC CHIP	0.01MF	5%	50V
C552	1-126-157-11	ELECT	10MF	20%	16V
C553	1-126-157-11	ELECT	10MF	20%	16V
C554	1-124-471-00	ELECT	1000MF	20%	6.3V
C555	1-163-017-00	CERAMIC CHIP	0.0047MF	10%	50V
C556	1-163-009-11	CERAMIC CHIP	0.001MF	10%	50V
C557	1-126-176-11	ELECT	220MF	20%	6.3V
C558	1-124-471-00	ELECT	1000MF	20%	6.3V
C559	1-124-916-71	ELECT	22MF	20%	63V
C560	1-124-438-00	ELECT	1MF	20%	50V
C561	1-124-589-11	ELECT	47MF	20%	16V

Ref.No	Part No.	Description		Remark
C562	1-163-077-00	CERAMIC CHIP 0.1MF		50V
C563	1-163-077-00	CERAMIC CHIP 0.1MF		50V
C564	1-124-438-00	ELECT 1MF	20%	50V
C565	1-124-589-11	ELECT 47MF	20%	16V
C566	1-163-021-00	CERAMIC CHIP 0.01MF		50V
C567	1-126-157-11	ELECT 10MF	20%	16V
C568	1-163-117-00	CERAMIC CHIP 100PF	5%	50V
C569	1-163-117-00	CERAMIC CHIP 100PF	5%	50V
C573	1-163-133-00	CERAMIC CHIP 470PF	5%	50V
C575	1-163-077-00	CERAMIC CHIP 0.1MF		50V
C576	1-163-077-00	CERAMIC CHIP 0.1MF		50V
C577	1-163-077-00	CERAMIC CHIP 0.1MF		50V
C578	1-126-157-11	ELECT 10MF	20%	16V
C579	1-163-077-00	CERAMIC CHIP 0.1MF		50V
C581	1-126-101-11	ELECT 100MF	20%	16V
C582	1-124-572-11	ELECT 100MF	20%	63V
C586	1-126-157-11	ELECT 10MF	20%	16V
C587	1-126-157-11	ELECT 10MF	20%	16V
C588	1-163-035-00	CERAMIC CHIP 0.047MF		50V
C593	1-163-105-00	CERAMIC CHIP 33PF	5%	50V
C594	1-163-105-00	CERAMIC CHIP 33PF	5%	50V
C595	1-163-021-00	CERAMIC CHIP 0.01MF		50V
C596	1-124-463-00	ELECT 0.1MF	20%	50V
C597	1-163-103-00	CERAMIC CHIP 27PF	5%	50V
C598	1-163-103-00	CERAMIC CHIP 27PF	5%	50V
C599	1-163-021-00	CERAMIC CHIP 0.01MF		50V
C601	1-163-133-00	CERAMIC CHIP 470PF	10%	50V
C602	1-102-114-00	CERAMIC 470PF	10%	50V
C603	1-163-119-00	CERAMIC CHIP 120PF	5%	50V
C606	1-102-975-21	CERAMIC CHIP 100PF		
C651	1-163-109-00	CERAMIC CHIP 47PF	5%	50V
C652	1-163-109-00	CERAMIC CHIP 47PF	5%	50V
C654	1-126-176-11	ELECT 220MF	20%	6.3V
C655	1-163-038-00	CERAMIC CHIP 0.1MF		25V
C656	1-163-021-00	CERAMIC CHIP 0.01MF		50V
C657	1-163-097-00	CERAMIC CHIP 15PF	5%	50V
C658	1-163-099-00	CERAMIC CHIP 18PF	5%	50V
C659	1-163-033-00	CERAMIC CHIP 0.022MF		50V
C660	1-163-033-00	CERAMIC CHIP 0.022MF		50V
C661	1-124-438-00	ELECT 1MF	20%	50V
C662	1-124-589-11	ELECT 47MF	20%	16V
C663	1-126-094-11	ELECT 4.7MF	20%	25V
C664	1-124-589-11	ELECT 47MF	20%	16V
C665	1-163-035-00	CERAMIC CHIP 0.047MF		50V
C666	1-163-035-00	CERAMIC CHIP 0.047MF		50V
C669	1-163-021-00	CERAMIC CHIP 0.01MF		50V
C670	1-163-129-00	CERAMIC CHIP 330PF	5%	50V
C671	1-163-021-00	CERAMIC CHIP 0.01MF		50V
C672	1-163-117-00	CERAMIC CHIP 100PF	5%	50V
C673	1-124-229-00	ELECT 33MF	20%	10V
C674	1-163-105-00	CERAMIC CHIP 33PF	5%	50V
C675	1-124-229-00	ELECT 33MF	20%	10V
C676	1-163-038-00	CERAMIC CHIP 0.1MF		25V

Ref.No	Part No.	Description		Remark
C901	1-163-109-00	CERAMIC CHIP 47PF	5%	50V
C902	1-163-109-00	CERAMIC CHIP 47PF	5%	50V
C903	1-126-157-11	ELECT 10MF	20%	16V
C905	1-126-157-11	ELECT 10MF	20%	16V
C908	1-124-589-11	ELECT 47MF	20%	16V
C909	1-126-101-11	ELECT 100MF	20%	16V
C910	1-126-101-11	ELECT 100MF	20%	16V
C917	1-126-157-11	ELECT 10MF	20%	16V
C919	1-124-443-00	ELECT 100MF	20%	10V
C920	1-163-038-00	CERAMIC CHIP 0.1MF		25V

CONNECTOR

CN203	*1-506-469-11	PIN, CONNECTOR 4P
CN204	*1-506-467-11	PIN, CONNECTOR 2P
CN401	*1-565-473-11	HOUSING, CONNECTOR 30P
CN402	*1-506-468-11	PIN, CONNECTOR 3P
CN403	*1-506-469-11	PIN, CONNECTOR 4P
CN404	*1-506-470-11	PIN, CONNECTOR 5P
CN405	*1-506-468-11	PIN, CONNECTOR 3P
CN501	*1-506-468-11	PIN, CONNECTOR 3P
CN502	*1-506-471-11	PIN, CONNECTOR 6P
CN511	*1-506-474-11	PIN, CONNECTOR 9P
CN512	*1-506-473-11	PIN, CONNECTOR 8P
CN513	*1-506-476-11	PIN, CONNECTOR 11P
CN514	*1-506-477-11	PIN, CONNECTOR 12P
CN517	1-564-003-00	PIN, CONNECTOR 4P (SLV-402)
CN521	1-565-475-11	CONNECTOR, BOARD TO BOARD 12P
CN522	1-565-474-11	CONNECTOR, BOARD TO BOARD 10P
CN531	*1-506-472-11	PIN, CONNECTOR 7P
CN532	*1-506-490-21	PIN, CONNECTOR 11P
CN541	*1-506-474-11	PIN, CONNECTOR 9P
CN542	*1-506-474-11	PIN, CONNECTOR 9P
CN551	1-565-474-11	CONNECTOR, BOARD TO BOARD 10P
CN552	1-565-476-11	CONNECTOR, BOARD TO BOARD 14P
CN553	*1-506-470-11	PIN, CONNECTOR 5P
CN554	1-568-068-11	PIN, CONNECTOR 9P
CN561	*1-565-060-11	PIN, CONNECTOR 16P
CN562	*1-564-679-11	PIN, CONNECTOR 8P
CN581	*1-506-744-11	PIN, CONNECTOR 15P
CN582	*1-506-744-11	PIN, CONNECTOR 15P

JACK

CNJ552	1-507-562-00	JACK
CNJ553	1-507-562-00	JACK

DIODE

D201	8-719-801-48	DIODE 1SS193
D402	8-719-801-48	DIODE 1SS193
D403	8-719-101-23	DIODE 1SS123
D404	8-719-200-82	DIODE RD11ES-B2
D405	8-719-914-47	DIODE DAN202K
D407	8-719-101-23	DIODE 1SS123
D408	8-719-801-48	DIODE 1SS193

When indicating parts by reference number, please include the board name.

MA-33

Ref.No	Part No.	Description	Remark
D409	8-719-105-82	DIODE RD5.1M-B2	
D411	8-719-801-48	DIODE 1SS193	
D501	8-719-200-82	DIODE 11ES2	
D503	8-719-914-44	DIODE DAP202K	
D504	8-719-105-73	DIODE RD4.7M-B2	
D506	8-719-914-45	DIODE DAP202K	
D551	8-719-914-47	DIODE DAN202K	
D554	8-719-106-43	DIODE RD9.1M-B1	
D555	8-719-200-84	DIODE 11ES2	
D556	8-719-200-84	DIODE 11ES2	
D558	8-719-108-20	DIODE 1SS222	
D560	8-719-914-44	DIODE DAP202K	
D561	8-719-101-23	DIODE 1SS123	
D563	8-719-914-43	DIODE DAN202K	
D564	8-719-101-23	DIODE 1SS123	
D565	8-719-101-23	DIODE 1SS123	
D566	8-719-911-06	DIODE 1SS106	
D651	8-719-914-43	DIODE DAN202K	
D652	8-719-105-91	DIODE RD5.6M-B2	
		IC	
IC201	8-759-805-20	IC LA7297	
IC401	8-759-009-07	IC MC14053BF	
IC402	8-759-100-95	IC UPC324G2	
IC403	8-759-100-94	IC UPC358G2	
IC404	8-759-700-45	IC NJM4556M-A	
IC405	8-759-320-53	IC HA13455	
IC406	8-759-100-95	IC UPC324G2	
IC407	8-759-100-96	IC UPC4558G2	
IC501	8-752-806-60	IC CXP80116-062Q	
IC502	8-759-973-95	IC BA6219	
IC503	8-759-820-95	IC LC6543H-3785	
IC504	8-759-925-43	IC MSM6411B-26GS-VK	
IC505	8-759-100-94	IC UPC358G2	
IC551	8-759-927-56	IC BA7021	
IC552	8-752-006-10	IC CX20061	
IC553	8-759-927-56	IC BA7021	
IC554	8-752-006-10	IC CX20061	
IC555	8-759-008-68	IC MC14066BF	
IC598	8-759-973-96	IC MB88201-628N	
IC599	8-759-910-84	IC MB88201-170N	
IC651	8-759-631-19	IC M50455-106FP	
IC652	8-759-013-79	IC MC1455ML	
IC901	8-759-804-80	IC LA7235	
		JUMPER WIRE	
JW401	1-216-295-00	METAL GLAZE 0 5% 1/10W	
JW404	1-216-295-00	METAL GLAZE 0 5% 1/10W	
JW407	1-216-295-00	METAL GLAZE 0 5% 1/10W	
JW410	1-216-295-00	METAL GLAZE 0 5% 1/10W	
JW555	1-216-295-00	METAL GLAZE 0 5% 1/10W	
JW562	1-216-295-00	METAL GLAZE 0 5% 1/10W	
JW565	1-216-295-00	METAL GLAZE 0 5% 1/10W	

Ref.No	Part No.	Description	Remark
JW566	1-216-295-00	METAL GLAZE 0 5% 1/10W	
JW567	1-216-295-00	METAL GLAZE 0 5% 1/10W	
JW568	1-216-295-00	METAL GLAZE 0 5% 1/10W	
JW570	1-216-295-00	METAL GLAZE 0 5% 1/10W	
JW571	1-216-295-00	METAL GLAZE 0 5% 1/10W	
JW572	1-216-295-00	METAL GLAZE 0 5% 1/10W	
JW651	1-216-295-00	METAL GLAZE 0 5% 1/10W	
		COIL	
L201	1-410-687-11	INDUCTOR 1.2MMH	
L202	1-410-091-31	INDUCTOR 22MMH	
L203	1-410-093-11	INDUCTOR 33MMH	
L402	1-408-710-00	COIL, CHOKE	
L552	1-407-169-XX	INDUCTOR 100UH	
L553	1-407-169-XX	INDUCTOR 100UH	
L651	1-407-169-XX	INDUCTOR 100UH	
L652	1-408-975-21	INDUCTOR 27UH	
L653	1-408-981-21	INDUCTOR 82UH	
L654	1-410-515-11	INDUCTOR 33UH	
L655	1-407-169-XX	INDUCTOR 100UH	
		VARIABLE COIL	
LV201	1-410-942-11	COIL, VARIABLE	
		IC LINK	
PS552⚠	1-532-605-11	LINK, IC ICP-N10 0.4A	
		TRANSISTOR	
Q101	8-729-901-01	TRANSISTOR DTC144EK	
Q201	8-729-177-43	TRANSISTOR 2SD774-4	
Q202	8-729-271-23	TRANSISTOR 2SC2712	
Q203	8-729-373-92	TRANSISTOR 2SB739-2	
Q406	8-729-804-17	TRANSISTOR 2SD1666-R	
Q407	8-729-611-53	TRANSISTOR 2SA1115-F	
Q409	8-729-177-24	TRANSISTOR 2SB772-P	
Q410	8-729-901-06	TRANSISTOR DTA144EK	
Q411	8-729-271-23	TRANSISTOR 2SC2712	
Q414	8-729-178-54	TRANSISTOR 2SC2785	
Q418	8-729-115-30	TRANSISTOR 2SK105A-30	
Q419	8-729-271-23	TRANSISTOR 2SC2712	
Q420	8-729-611-53	TRANSISTOR 2SA1115-F	
Q421	8-729-901-01	TRANSISTOR DTC144EK	
Q422	8-729-901-01	TRANSISTOR DTC144EK	
Q423	8-729-900-53	TRANSISTOR DTC114EK	
Q424	8-729-800-66	TRANSISTOR 2SA1179M6-TA	
Q501	8-729-901-01	TRANSISTOR DTC144EK	
Q502	8-729-901-01	TRANSISTOR DTC144EK	
Q503	8-729-900-53	TRANSISTOR DTC114EK	
Q551	8-729-901-01	TRANSISTOR DTC144EK	
Q552	8-729-800-66	TRANSISTOR 2SA1179M6-TA	
Q553	8-729-800-66	TRANSISTOR 2SA1179M6-TA	
Q554	8-729-800-66	TRANSISTOR 2SA1179M6-TA	

When indicating parts by reference number, please include the board name.

Note: The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.

Ref.No	Part No.	Description				Remark
Q555	8-729-378-84	TRANSISTOR 2SD788-3TZ				
Q556	8-729-103-43	TRANSISTOR 2SB734-T-3				
Q557	8-729-901-01	TRANSISTOR DTC144EK				
Q558	8-729-901-01	TRANSISTOR DTC144EK				
Q561	8-729-800-66	TRANSISTOR 2SA1179M6-TA				
Q562	8-729-271-23	TRANSISTOR 2SC2712				
Q565	8-729-901-06	TRANSISTOR DTA144EK				
Q566	8-729-901-01	TRANSISTOR DTC144EK				
Q567	8-729-900-53	TRANSISTOR DTC114EK				
Q568	8-729-271-23	TRANSISTOR 2SC2712				
Q594	8-729-271-23	TRANSISTOR 2SC2712				
Q595	8-729-800-66	TRANSISTOR 2SA1179M6-TA				
Q596	8-729-901-01	TRANSISTOR DTC144EK				
Q597	8-729-271-23	TRANSISTOR 2SC2712				
Q598	8-729-901-01	TRANSISTOR DTC144EK				
Q599	8-729-901-01	TRANSISTOR DTC144EK				
Q601	8-729-800-66	TRANSISTOR 2SA1179M6-TA				
Q655	8-729-271-23	TRANSISTOR 2SC2712				
Q656	8-729-271-23	TRANSISTOR 2SC2712				
Q657	8-729-800-66	TRANSISTOR 2SA1179M6-TA				
Q658	8-729-271-23	TRANSISTOR 2SC2712				
Q659	8-729-271-23	TRANSISTOR 2SC2712				
Q660	8-729-901-01	TRANSISTOR DTC144EK				
Q661	8-729-271-23	TRANSISTOR 2SC2712				
		RESISTOR				
R101	1-216-089-00	METAL GLAZE	47K	5%	1/10W	
R102	1-216-089-00	METAL GLAZE	47K	5%	1/10W	
R111	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R201	1-216-093-00	METAL GLAZE	68K	5%	1/10W	
R202	⚠1-249-429-11	CARBON	10K	5%	1/4W	F
R203	⚠1-249-453-11	CARBON	3.3	5%	1/4W	F
R204	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R205	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R206	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R207	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R208	1-216-295-00	METAL GLAZE	0	5%	1/10W	
R209	1-216-063-00	METAL GLAZE	3.9K	5%	1/10W	
R210	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R211	1-216-077-00	METAL GLAZE	15K	5%	1/10W	
R212	1-216-001-00	METAL GLAZE	10	5%	1/10W	
R213	1-216-295-00	METAL GLAZE	0	5%	1/10W	
R214	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R215	1-216-035-00	METAL GLAZE	270	5%	1/10W	
R216	1-216-109-00	METAL GLAZE	330K	5%	1/10W	
R217	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R218	1-216-093-00	METAL GLAZE	68K	5%	1/10W	
R219	1-216-083-00	METAL GLAZE	27K	5%	1/10W	
R220	1-216-121-00	METAL GLAZE	1M	5%	1/10W	
R221	1-216-079-00	METAL GLAZE	18K	5%	1/10W	
R222	1-216-069-00	METAL GLAZE	6.8K	5%	1/10W	
R223	1-216-091-00	METAL GLAZE	56K	5%	1/10W	
R224	1-216-067-00	METAL GLAZE	5.6K	5%	1/10W	

Ref.No	Part No.	Description				Remark
R230	1-216-097-00	METAL GLAZE	100K	5%	1/10W	
R231	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R232	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	
R301	1-216-089-00	METAL GLAZE	47K	5%	1/10W	
R302	1-216-218-95	METAL GLAZE	6.8K	10%	1/8W	
R303	1-249-413-11	CARBON	470	5%	1/4W	
R402	1-216-089-00	METAL GLAZE	47K	5%	1/10W	
R403	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R404	1-216-097-00	METAL GLAZE	100K	5%	1/10W	
R405	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R406	1-216-097-00	METAL GLAZE	100K	5%	1/10W	
R407	1-216-113-00	METAL GLAZE	470K	5%	1/10W	
R408	1-216-109-00	METAL GLAZE	330K	5%	1/10W	
R409	1-216-113-00	METAL GLAZE	470K	5%	1/10W	
R410	1-216-105-00	METAL GLAZE	220K	5%	1/10W	
R411	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R412	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R416	1-216-077-00	METAL GLAZE	15K	5%	1/10W	
R417	1-249-413-11	CARBON	470	5%	1/4W	
R418	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R419	1-216-089-00	METAL GLAZE	47K	5%	1/10W	
R422	1-216-107-00	METAL GLAZE	270K	5%	1/10W	
R423	1-216-075-00	METAL GLAZE	12K	5%	1/10W	
R424	1-216-077-00	METAL GLAZE	15K	5%	1/10W	
R425	1-216-031-00	METAL GLAZE	180	5%	1/10W	
R426	1-216-027-00	METAL GLAZE	120	5%	1/10W	
R427	1-216-095-00	METAL GLAZE	82K	5%	1/10W	
R428	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R429	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R430	1-216-075-00	METAL GLAZE	12K	5%	1/10W	
R431	1-216-077-00	METAL GLAZE	15K	5%	1/10W	
R432	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R433	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R434	⚠1-212-934-00	FUSIBLE	1	5%	1/2W	F
R435	1-249-393-11	CARBON	10	5%	1/4W	
R436	1-249-393-11	CARBON	10	5%	1/4W	
R437	1-249-393-11	CARBON	10	5%	1/4W	
R438	1-216-009-00	METAL GLAZE	22	5%	1/10W	
R439	1-216-089-00	METAL GLAZE	47K	5%	1/10W	
R440	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R441	1-216-079-00	METAL GLAZE	18K	5%	1/10W	
R444	1-216-079-00	METAL GLAZE	18K	5%	1/10W	
R447	1-249-405-11	CARBON	100	5%	1/4W	
R448	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R449	1-216-103-00	METAL GLAZE	180K	5%	1/10W	
R450	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R451	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R452	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R453	1-216-061-00	METAL GLAZE	3.3K	5%	1/10W	
R454	1-216-061-00	METAL GLAZE	3.3K	5%	1/10W	
R455	1-216-097-00	METAL GLAZE	100K	5%	1/10W	
R456	1-216-037-00	METAL GLAZE	330	5%	1/10W	
R457	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	

When indicating parts by reference number, please include the board name.

Note: The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.

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Ref.No	Part No.	Description				Remark
R458 ⚠	1-216-349-00	METAL OXIDE	1	5%	1W	F
R459	1-216-103-00	METAL GLAZE	180K	5%	1/10W	
R460	1-216-113-00	METAL GLAZE	470K	5%	1/10W	
R461	1-216-077-00	METAL GLAZE	15K	5%	1/10W	
R462	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R463	1-249-413-11	CARBON	470	5%	1/4W	
R464	1-216-085-00	METAL GLAZE	33K	5%	1/10W	
R465	1-216-113-00	METAL GLAZE	470K	5%	1/10W	
R466	1-216-105-00	METAL GLAZE	220K	5%	1/10W	
R468	1-216-055-00	METAL GLAZE	1.8K	5%	1/10W	
R469 ⚠	1-212-934-00	FUSIBLE	1	5%	1/2W	F
R470	1-216-089-00	METAL GLAZE	47K	5%	1/10W	
R471	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R472	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R473	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R474	1-216-097-00	METAL GLAZE	100K	5%	1/10W	
R475	1-216-097-00	METAL GLAZE	100K	5%	1/10W	
R476	1-216-097-00	METAL GLAZE	100K	5%	1/10W	
R477	1-216-097-00	METAL GLAZE	100K	5%	1/10W	
R479	1-216-107-00	METAL GLAZE	270K	5%	1/10W	
R480	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R481	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R482	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R483	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R484	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R485	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R486	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R487	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R488	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R493	1-216-111-00	METAL GLAZE	390K	5%	1/10W	
R494	1-216-089-00	METAL GLAZE	47K	5%	1/10W	
R495	1-216-097-00	METAL GLAZE	100K	5%	1/10W	
R497	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R498	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R501	1-216-085-00	METAL GLAZE	33K	5%	1/10W	
R502	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R503	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R505	1-249-417-11	CARBON	1K	5%	1/4W	
R506	1-216-097-00	METAL GLAZE	100K	5%	1/10W	
R507	1-216-115-91	METAL GLAZE	560K	5%	1/10W	
R508	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R509	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R510	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R511	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R512	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R513	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R514	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R515	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R516	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R518	1-216-097-00	METAL GLAZE	100K	5%	1/10W	
R519	1-216-059-00	METAL GLAZE	2.7K	5%	1/10W	
R520	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R521	1-216-061-00	METAL GLAZE	3.3K	5%	1/10W	
R522	1-216-061-00	METAL GLAZE	3.3K	5%	1/10W	
R523	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R524	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R525	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R526	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R527	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R530	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R531	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R532	1-216-061-00	METAL GLAZE	3.3K	5%	1/10W	
R534	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R541	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R542	1-216-063-00	METAL GLAZE	3.9K	5%	1/10W	
R543	1-216-089-00	METAL GLAZE	47K	5%	1/10W	
R545	1-249-413-11	CARBON	470	5%	1/4W	
R547	1-216-061-00	METAL GLAZE	3.3K	5%	1/10W	
R548	1-216-061-00	METAL GLAZE	3.3K	5%	1/10W	
R549	1-216-061-00	METAL GLAZE	3.3K	5%	1/10W	
R551	1-216-053-00	METAL GLAZE	1.5K	5%	1/10W	
R552	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R554	1-249-407-11	CARBON	150	5%	1/4W	
R555	1-216-121-00	METAL GLAZE	1M	5%	1/10W	
R556	1-216-021-00	METAL GLAZE	68	5%	1/10W	
R557	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R558	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R559	1-216-295-00	METAL GLAZE	0	5%	1/10W	
R560	1-216-021-00	METAL GLAZE	68	5%	1/10W	
R561	1-216-022-00	METAL GLAZE	75	5%	1/10W	
R562	1-216-037-00	METAL GLAZE	330	5%	1/10W	
R563	1-216-077-00	METAL GLAZE	15K	5%	1/10W	
R564	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R565	1-216-040-00	METAL GLAZE	430	5%	1/10W	
R566	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R567	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R568	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R569	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R570	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R571	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R572	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R573	1-216-097-00	METAL GLAZE	100K	5%	1/10W	
R574	1-216-089-00	METAL GLAZE	47K	5%	1/10W	
R575	1-216-061-00	METAL GLAZE	3.3K	5%	1/10W	
R576	1-216-071-00	METAL GLAZE	8.2K	5%	1/10W	
R577	1-216-061-00	METAL GLAZE	3.3K	5%	1/10W	
R578	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R579	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R580	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R585	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R587	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R588	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R589	1-216-061-00	METAL GLAZE	3.3K	5%	1/10W	
R591	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R592	1-216-097-00	METAL GLAZE	100K	5%	1/10W	
R593	1-216-049-00	METAL GLAZE	1K	5%	1/10W	

When indicating parts by reference number, please include the board name.

Note: The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.

Ref.No	Part No.	Description				Remark
R594	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R596	1-216-101-00	METAL GLAZE	150K	5%	1/10W	
R597	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R598	1-216-089-00	METAL GLAZE	47K	5%	1/10W	
R599	1-216-089-00	METAL GLAZE	47K	5%	1/10W	
R601	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	
R602	1-216-029-00	METAL GLAZE	150	5%	1/10W	
R603	1-216-105-00	METAL GLAZE	220K	5%	1/10W	
R651	1-216-059-00	METAL GLAZE	2.7K	5%	1/10W	
R652	1-216-061-00	METAL GLAZE	3.3K	5%	1/10W	
R655	1-216-055-00	METAL GLAZE	1.8K	5%	1/10W	
R656	1-216-043-00	METAL GLAZE	560	5%	1/10W	
R657	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R658	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R659	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	
R660	1-216-061-00	METAL GLAZE	3.3K	5%	1/10W	
R662	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	
R663	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R664	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R665	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R666	1-216-043-00	METAL GLAZE	560	5%	1/10W	
R667	1-216-045-00	METAL GLAZE	680	5%	1/10W	
R668	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R669	1-216-055-00	METAL GLAZE	1.8k	5%	1/10W	
R670	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R672	1-216-085-00	METAL GLAZE	33K	5%	1/10W	
R673	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R674	1-216-085-00	METAL GLAZE	33K	5%	1/10W	
R675	1-216-077-00	METAL GLAZE	15K	5%	1/10W	
R676	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R677	1-216-089-00	METAL GLAZE	47K	5%	1/10W	
R678	1-216-071-00	METAL GLAZE	8.2K	5%	1/10W	
R679	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R680	1-216-077-00	METAL GLAZE	15K	5%	1/10W	
R681	1-216-085-00	METAL GLAZE	33K	5%	1/10W	
R682	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R683	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R684	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R685	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R686	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R687	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R688	1-216-029-00	METAL GLAZE	150	5%	1/10W	
R697	1-216-295-00	METAL GLAZE	0	5%	1/10W	
R698	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R907	1-216-097-00	METAL GLAZE	100K	5%	1/10W	
R908	1-216-077-00	METAL GLAZE	15K	5%	1/10W	
R909	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R910	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R912	1-249-422-11	CARBON	2.7K	5%	1/4W	

VARIABLE RESISTOR

Ref.No	Part No.	Description	Remark
RV201	1-228-999-00	RES, ADJ, CARBON 470K	
RV401	1-228-994-00	RES, ADJ, CARBON 10K	
RV501	1-238-168-11	RES, ADJ, CARBON 47K	
RV651	1-238-166-11	RES, ADJ, CARBON 1K	
RV652	1-238-168-11	RES, ADJ, CARBON 47K	

RELAY

Ref.No	Part No.	Description	Remark
RY201	1-515-529-11	RELAY	

TRANSFORMER

Ref.No	Part No.	Description	Remark
T201	1-433-330-11	TRANSFORMER, BIAS OSCILLATION	

CRYSTAL

Ref.No	Part No.	Description	Remark
X501	1-577-116-21	VIBRATOR, CRYSTAL (16MHz)	
X502	1-567-192-11	OSCILLATOR, CERAMIC (4MHz)	
X503	1-567-192-11	OSCILLATOR, CERAMIC (4MHz)	
X598	1-567-192-11	OSCILLATOR, CERAMIC (4MHz)	
X599	1-567-143-00	OSCILLATOR, CERAMIC (6MHz)	
X651	1-577-289-11	VIBRATOR, CRYSTAL (17.72MHz)	

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*A-6721-296-A TU-97 BOARD, COMPLETE (Ref No. 7000 Series)
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CAPACITOR

Ref.No	Part No.	Description				Remark
C301	1-163-100-00	CERAMIC CHIP	20PF	5%	50V	
C302	1-163-100-00	CERAMIC CHIP	20PF	5%	50V	
C303	1-163-077-00	CERAMIC CHIP	0.1MF		50V	
C304	1-126-101-11	ELECT	100MF	20%	16V	
C305	1-163-077-00	CERAMIC CHIP	0.1MF		50V	
C306	1-126-163-11	ELECT	4.7MF	20%	50V	
C307	1-163-021-00	CERAMIC CHIP	0.01MF	10%	50V	
C308	1-123-372-00	ELECT	33MF	20%	63V	
C309	1-124-438-00	ELECT	1MF	20%	50V	
C312	1-124-234-00	ELECT	22MF	20%	16V	
C314	1-164-161-11	CERAMIC CHIP	0.0022MF	10%	50V	
C315	1-164-161-11	CERAMIC CHIP	0.0022MF	10%	50V	
C318	1-163-021-00	CERAMIC CHIP	0.01MF	10%	50V	
C319	1-163-017-00	CERAMIC CHIP	0.0047MF	10%	50V	
C320	1-163-063-00	CERAMIC CHIP	0.022MF	10%	50V	
C321	1-124-257-00	ELECT	2.2MF	20%	50V	
C324	1-163-009-11	CERAMIC CHIP	0.001MF	10%	50V	
C325	1-163-125-00	CERAMIC CHIP	220PF	10%	50V	
C326	1-164-161-11	CERAMIC CHIP	0.0022MF	10%	50V	
C327	1-164-161-11	CERAMIC CHIP	0.0022MF	10%	50V	
C328	1-163-021-00	CERAMIC CHIP	0.01MF	10%	50V	
C329	1-163-103-00	CERAMIC CHIP	27PF	5%	50V	
C331	1-163-101-00	CERAMIC CHIP	22PF	5%	50V	
C332	1-126-101-11	ELECT	100MF	20%	16V	
C333	1-163-484-91	CERAMIC CHIP	56PF	5%	50V	
C335	1-126-101-11	ELECT	100MF	20%	16V	
C336	1-124-257-00	ELECT	2.2MF	20%	50V	
C338	1-124-234-00	ELECT	22MF	20%	16V	
C339	1-163-035-00	CERAMIC CHIP	0.047MF		50V	

When indicating parts by reference number, please include the board name.

TU-97 **PS-212**

Ref.No	Part No.	Description				Remark
C340	1-164-161-11	CERAMIC CHIP	0.0022MF	10%	50V	
		CONNECTOR				
CN301	*1-565-741-11	CONNECTOR, BOARD TO BOARD 10P				
CN302	*1-565-742-11	CONNECTOR, BOARD TO BOARD 14P				
		DIODE				
D301	8-719-801-48	DIODE 1SS193				
D302	8-719-110-78	DIODE RD33ES-B2				
D303	8-719-801-48	DIODE 1SS193				
D304	8-719-801-48	DIODE 1SS193				
D390	8-719-801-48	DIODE 1SS193				
		IC				
IC301	8-759-030-79	IC MC68HC05N2BSC403511B				
		IF				
IF301⚠.	1-466-034-11	IF BLOCK (IFV-389A)				
		JUMPER WIRE				
JW301	1-216-295-00	METAL GLAZE	0	5%	1/10W	
JW305	1-216-295-00	METAL GLAZE	0	5%	1/10W	
JW306	1-216-295-00	METAL GLAZE	0	5%	1/10W	
		COIL				
L302	1-410-399-11	INDUCTOR	0.22UH			
L303	1-408-413-00	INDUCTOR	22UH			
L304	1-408-416-00	INDUCTOR	39UH			
L305	1-408-415-00	INDUCTOR	33UH			
L306	1-408-989-21	INDUCTOR	470UH			
		TRANSISTOR				
Q301	8-729-177-43	TRANSISTOR 2SD774-4				
Q302	8-729-100-76	TRANSISTOR 2SA812				
Q303	8-729-100-66	TRANSISTOR 2SC1623				
Q305	8-729-303-38	TRANSISTOR 2SD655-F				
Q308	8-729-266-93	TRANSISTOR 2SC2669-0				
Q310	8-729-100-66	TRANSISTOR 2SC1623				
Q311	8-729-100-66	TRANSISTOR 2SC1623				
Q312	8-729-100-76	TRANSISTOR 2SA812				
Q390	8-729-900-53	TRANSISTOR DTC114EK				
		RESISTOR				
R301	1-216-121-00	METAL GLAZE	1M	5%	1/10W	
R302	1-249-425-11	CARBON	4.7K	5%	1/4W	
R303	1-216-089-00	METAL GLAZE	47K	5%	1/10W	
R304	1-216-089-00	METAL GLAZE	47K	5%	1/10W	
R305	1-216-089-00	METAL GLAZE	47K	5%	1/10W	
R306	1-216-089-00	METAL GLAZE	47K	5%	1/10W	
R307	1-216-101-00	METAL GLAZE	150K	5%	1/10W	
R308	1-216-101-00	METAL GLAZE	150K	5%	1/10W	
R316	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	
R318	1-216-063-00	METAL GLAZE	3.9K	5%	1/10W	

Ref.No	Part No.	Description				Remark
R323	1-216-121-00	METAL GLAZE	1M	5%	1/10W	
R324	1-216-059-00	METAL GLAZE	2.7K	5%	1/10W	
R325	1-216-063-00	METAL GLAZE	3.9K	5%	1/10W	
R326	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R327	1-216-053-00	METAL GLAZE	1.5K	5%	1/10W	
R329	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	
R330	1-216-466-51	METAL OXIDE	39K	5%	2W	F
R334	1-216-053-00	METAL GLAZE	1.5K	5%	1/10W	
R336	1-216-089-00	METAL GLAZE	47K	5%	1/10W	
R337	1-216-089-00	METAL GLAZE	47K	5%	1/10W	
R339	1-216-059-00	METAL GLAZE	2.7K	5%	1/10W	
R340	1-216-037-00	METAL GLAZE	330	5%	1/10W	
R341	1-216-021-00	METAL GLAZE	68	5%	1/10W	
R342	1-216-051-00	METAL GLAZE	1.2K	5%	1/10W	
R343	1-216-029-00	METAL GLAZE	150	5%	1/10W	
R344	1-216-021-00	METAL GLAZE	68	5%	1/10W	
R345	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	
R346	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R347	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R348	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R349	1-216-053-00	METAL GLAZE	1.5K	5%	1/10W	
R350	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R351	1-216-055-00	METAL GLAZE	1.8K	5%	1/10W	
R352	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R354	1-216-053-00	METAL GLAZE	1.5K	5%	1/10W	
R355	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R356	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R359	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R360	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R361	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R362	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R390	1-216-043-00	METAL GLAZE	560	5%	1/10W	
		TUNER				
TU301⚠.	1-465-099-11	TEME-8				
		CRYSTAL				
X301	1-567-160-21	OSCILLATOR, CERAMIC				

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	*A-6722-390-A	PS-212 BOARD, COMPLETE ************************			(Ref No. 9000 Series)
	*1-533-189-11	HOLDER, FUSE			
		CAPACITOR			
C701 ⚠.	1-136-472-11	FILM	0.1MF	20%	250V
C702 ⚠.	1-161-742-00	CERAMIC	0.0022MF	20%	400V
C703 ⚠.	1-161-742-00	CERAMIC	0.0022MF	20%	400V
C704 ⚠.	1-161-742-00	CERAMIC	0.0022MF	20%	400V
C705 ⚠.	1-161-742-00	CERAMIC	0.0022MF	20%	400V
C720	1-124-772-11	ELECT	10000MF	20%	25V

When indicating parts by reference number, please include the board name.

Note: The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.

Ref.No	Part No.	Description	Remark
C721	1-126-107-11	ELECT 10000MF 20%	16V
C723	1-124-446-11	ELECT 47MF 20%	10V
C724	1-124-477-11	ELECT 47MF 20%	16V
C726	1-124-446-11	ELECT 47MF 20%	10V
C728	1-124-477-11	ELECT 47MF 20%	16V

CONNECTOR

Ref.No	Part No.	Description	Remark
CN720	*1-506-470-11	PIN, CONNECTOR 5P	
CN721	*1-506-469-11	PIN, CONNECTOR 4P	
CN722	*1-506-474-11	PIN, CONNECTOR 9P	

FUSE

Ref.No	Part No.	Description	Remark
F701	⚠.1-532-259-11	FUSE, TIME-LAG 1.6A/250V	
F720	⚠.1-532-237-11	FUSE, TIME-LAG 3.15A/250V	
F721	⚠.1-532-286-11	FUSE, TIME-LAG 2.5A/250V	

COIL

Ref.No	Part No.	Description	Remark
L720	1-412-012-11	INDUCTOR 100UH	

TRANSISTOR

Ref.No	Part No.	Description	Remark
Q720	8-729-178-54	TRANSISTOR 2SC2785	
Q721	8-729-900-89	TRANSISTOR DTC144ES	
Q722	8-729-113-32	TRANSISTOR 2SB733-3	
Q723	8-729-900-89	TRANSISTOR DTC144ES	
Q725	8-729-900-89	TRANSISTOR DTC144ES	

RESISTOR

Ref.No	Part No.	Description	Remark
R723	1-249-433-11	CARBON 22K 5% 1/4W	
R724	1-249-418-11	CARBON 1.2K 5% 1/4W	
R725	1-249-411-11	CARBON 330 5% 1/4W	
R726	1-249-429-11	CARBON 10K 5% 1/4W	
R727	⚠.1-212-857-00	FUSIBLE 10 5% 1/4W	F

TRANSFORMER

Ref.No	Part No.	Description	Remark
T701	⚠.1-421-765-11	FILTER, LINE	

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Ref.No	Part No.	Description	Remark
	*A-6725-661-A	MF-42 BOARD, COMPLETE ********************** (SLV-401)	(Ref No. 8000 Series)
	*A-6725-660-A	MF-42 BOARD, COMPLETE (SLV-402) **********************	
	*3-727-735-01	HOLDER, FL	

BUZZER

Ref.No	Part No.	Description	Remark
BZ601	1-529-070-11	BUZZER	

CAPACITOR

Ref.No	Part No.	Description	Remark
C601	1-163-081-00	CERAMIC CHIP 0.22MF	25V
C602	1-163-117-00	CERAMIC CHIP 100PF 5%	50V
C603	1-163-117-00	CERAMIC CHIP 100PF 5%	50V
C604	1-163-101-00	CERAMIC CHIP 22PF 5%	50V

Ref.No	Part No.	Description	Remark
C606	1-163-038-00	CERAMIC CHIP 0.1MF	25V
C607	1-163-038-00	CERAMIC CHIP 0.1MF	25V
C608	1-125-486-11	ELECT 220MF	5.5V
C609	1-163-038-00	CERAMIC CHIP 0.1MF	25V
C610	1-163-038-00	CERAMIC CHIP 0.1MF	25V
C611	1-163-103-00	CERAMIC CHIP 27PF 5%	50V
C612	1-163-103-00	CERAMIC CHIP 27PF 5%	50V
C613	1-124-483-71	ELECT 47MF 20%	35V
C614	1-163-038-00	CERAMIC CHIP 0.1MF	25V
C615	1-136-017-00	CERAMIC CHIP 0.0047MF	50V
C616	1-126-157-11	ELECT 10MF 20%	16V
C617	1-163-141-00	CERAMIC CHIP 0.001MF 5%	50V (SLV-402)
C619	1-163-141-00	CERAMIC CHIP 0.001MF 5%	50V (SLV-402)
C631	1-163-035-00	CERAMIC CHIP 0.047MF	50V (SLV-402)
C632	1-163-035-00	CERAMIC CHIP 0.047MF	50V (SLV-402)

CONNECTOR

Ref.No	Part No.	Description	Remark
CN601	1-565-914-11	SOCKET, CONNECTOR 25P	
CN602	1-565-913-11	SOCKET, CONNECTOR 22P	
CN608	1-563-620-11	CONNECTOR, FLEXIBLE 17P	

TRIMMER

Ref.No	Part No.	Description	Remark
CV601	1-141-311-11	CAP, VAR, TRIMMER (CHIP) 20P	

DIODE

Ref.No	Part No.	Description	Remark
D601	8-719-100-05	DIODE 1S2837	
D603	8-719-100-03	DIODE 1S2835	
D604	8-719-100-05	DIODE 1S2837	
D608	8-719-110-08	DIODE RD8.2EB2	
D611	8-719-110-36	DIODE RD13ES-B2	
D614	8-719-105-73	DIODE RD4.7M-B2	
D615	8-719-105-73	DIODE RD4.7M-B2	

INDICATOR TUBE

Ref.No	Part No.	Description	Remark
FL601	1-519-468-11	INDICATOR TUBE, FLUORESCENT	

IC

Ref.No	Part No.	Description	Remark
IC601	8-752-806-62	IC CXP5058H-182Q	
IC602	8-759-143-31	IC UPD7564G-527	
IC604	8-759-941-78	IC S-8053ALB-LI-T1	
IC605	8-759-946-03	IC S-8054ALR-LN-S	
IC607	1-806-825-11	IC UPD4011BG	

JACK

Ref.No	Part No.	Description	Remark
J602	1-565-946-11	JACK, PIN 2P (LINE IN 2)	

COIL

Ref.No	Part No.	Description	Remark
L601	1-408-989-21	INDUCTOR 470UH (SLV-402)	

TRANSISTOR

Ref.No	Part No.	Description	Remark
Q601	8-729-901-01	TRANSISTOR DTC144EK	
Q602	8-729-100-76	TRANSISTOR 2SA812	

When indicating parts by reference number, please include the board name.

Note: The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.

MF-42 RK-3 RP-63

Ref.No	Part No.	Description	Remark
Q603	8-729-901-01	TRANSISTOR DTC144EK	
Q606	8-729-900-53	TRANSISTOR DTC114EK	
Q607	8-729-900-53	TRANSISTOR DTC114EK	

RESISTOR

Ref.No	Part No.	Description				Remark
R601	1-216-097-00	METAL GLAZE	100K	5%	1/10W	
R602	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	
R603	1-216-089-00	METAL GLAZE	47K	5%	1/10W	
R604	1-216-089-00	METAL GLAZE	47K	5%	1/10W	
R605	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R606	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R607	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R608	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R609	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R610	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R611	1-216-053-00	METAL GLAZE	1.5K	5%	1/10W	
R612	1-216-055-00	METAL GLAZE	1.8K	5%	1/10W	
R613	1-216-061-00	METAL GLAZE	3.3K	5%	1/10W	
R614	1-216-071-00	METAL GLAZE	8.2K	5%	1/10W	
R615	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R616	1-216-061-00	METAL GLAZE	3.3K	5%	1/10W	
R625	1-216-113-00	METAL GLAZE	470K	5%	1/10W	
R626	1-216-017-00	METAL GLAZE	47	5%	1/10W	
R627	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R628	1-216-069-00	METAL GLAZE	6.8K	5%	1/10W	
R629	1-216-069-00	METAL GLAZE	6.8K	5%	1/10W	
R632	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R633	1-216-029-00	METAL GLAZE	150	5%	1/10W	
R634	1-216-029-00	METAL GLAZE	150	5%	1/10W	
R635	1-216-029-00	METAL GLAZE	150	5%	1/10W	
R636	1-216-029-00	METAL GLAZE	150	5%	1/10W	
R637	1-216-029-00	METAL GLAZE	150	5%	1/10W	
R638	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R639	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R640	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R641	1-216-097-00	METAL GLAZE	100K	5%	1/10W	
R642	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R643	1-216-061-00	METAL GLAZE	3.3K	5%	1/10W	
R645	1-216-022-00	METAL GLAZE	75	5%	1/10W	
R647	1-216-059-00	METAL GLAZE	2.7K	5%	1/10W	
R649	1-216-053-00	METAL GLAZE	1.5K	5%	1/10W	
R650	1-216-055-00	METAL GLAZE	1.8K	5%	1/10W	
R651	1-216-069-00	METAL GLAZE	6.8K	5%	1/10W	
R653	1-216-069-00	METAL GLAZE	6.8K	5%	1/10W	
R654	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R663	1-216-295-00	METAL GLAZE	0	5%	1/10W	(SLV-401)
R668	1-216-071-00	METAL GLAZE	8.2K	5%	1/10W	(SLV-402)

VARIABLE RESISTOR

Ref.No	Part No.	Description	Remark
RV601	1-230-226-00	RES, VAR, CARBON 10K (SHARPNESS)	
RV604	1-230-226-00	RES, VAR, CARBON 10K (TRACKING NORMAL)	
RV605	1-230-661-11	RES, VAR, CARBON 10K (TRACKING SLOW)	

SWITCH

Ref.No	Part No.	Description	Remark
S602	1-570-909-21	SWITCH, TACTIL (REFLOW TYPE)	(⏏ EJECT)
S607	1-570-865-11	SWITCH, SLIDE (SAP)	(SLV-402)
S611	1-570-909-21	SWITCH, TACTIL (REFLOW TYPE)	(INPUT SELE
S612	1-570-909-21	SWITCH, TACTIL (REFLOW TYPE)	(CHANNEL -)
S613	1-570-909-21	SWITCH, TACTIL (REFLOW TYPE)	(CHANNEL +)
S614	1-570-909-21	SWITCH, TACTIL (REFLOW TYPE)	(TV/VTR)
S616	1-570-909-21	SWITCH, TACTIL (REFLOW TYPE)	(COUNTER RE

CRYSTAL

Ref.No	Part No.	Description	Remark
X601	1-567-519-11	VIBRATOR, CRYSTAL (4.194MHz)	
X602	1-567-098-00	VIBRATOR, CRYSTAL (32.768KKZ	
X603	1-577-163-11	VIBLATOR, CERAMIC (700KHz)	

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A-6729-795-A RK-3 BOARD, COMPLETE (Ref No. 8000 Series)
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CAPACITOR

Ref.No	Part No.	Description				Remark
C626	1-126-154-11	ELECT	47MF	20%	6.3V	

CONNECTOR

Ref.No	Part No.	Description	Remark
CN612	1-565-889-11	PIN, BOARD TO BOARD 3P	

IC

Ref.No	Part No.	Description	Remark
IC608	8-749-900-36	IC BX-1393	

RESISTOR

Ref.No	Part No.	Description				Remark
R667	1-216-017-00	METAL GLAZE	47	5%	1/10W	

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*A-6727-001-A RP-63 BOARD, COMPLETE (Ref No. 1000 Series)
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CAPACITOR

Ref.No	Part No.	Description				Remark
C801	1-163-038-00	CERAMIC CHIP	0.1MF		25V	
C802	1-126-154-11	ELECT	47MF	20%	6.3V	
C803	1-163-038-00	CERAMIC CHIP	0.1MF		25V	
C804	1-124-464-11	ELECT	0.22MF	20%	50V	
C805	1-163-105-00	CERAMIC CHIP	33PF	5%	50V	
C806	1-163-105-00	CERAMIC CHIP	33PF	5%	50V	
C807	1-124-464-11	ELECT	0.22MF	20%	50V	
C808	1-163-038-00	CERAMIC CHIP	0.1MF		25V	
C809	1-163-038-00	CERAMIC CHIP	0.1MF		25V	
C810	1-124-464-11	ELECT	0.22MF	20%	50V	
C813	1-124-464-11	ELECT	0.22MF	20%	50V	
C814	1-163-038-00	CERAMIC CHIP	0.1MF		25V	
C815	1-163-101-00	CERAMIC CHIP	22PF	5%	50V	
C816	1-124-463-00	ELECT	0.1MF	20%	50V	
C817	1-163-021-00	CERAMIC CHIP	0.01MF	10%	50V	

When indicating parts by reference number, please include the board name.

Ref.No	Part No.	Description			Remark
C818	1-163-021-00	CERAMIC CHIP	0.01MF	10%	50V
C819	1-163-131-00	CERAMIC CHIP	390PF	5%	50V
C820	1-164-161-11	CERAMIC CHIP	0.0022MF	10%	50V
C821	1-163-021-00	CERAMIC CHIP	0.01MF	10%	50V
C822	1-163-021-00	CERAMIC CHIP	0.01MF	10%	50V
C823	1-163-105-00	CERAMIC CHIP	33PF	5%	50V
C824	1-163-021-00	CERAMIC CHIP	0.01MF	10%	50V
C825	1-163-117-00	CERAMIC CHIP	100PF	5%	50V
C826	1-163-113-00	CERAMIC CHIP	68PF	5%	50V
C827	1-163-129-00	CERAMIC CHIP	330PF	5%	50V
C828	1-126-154-11	ELECT	47MF	20%	6.3V
C829	1-163-038-00	CERAMIC CHIP	0.1MF		25V
C831	1-126-154-11	ELECT	47MF	20%	6.3V
C832	1-163-038-00	CERAMIC CHIP	0.1MF		25V
C833	1-163-021-00	CERAMIC CHIP	0.01MF	10%	50V
C834	1-163-038-00	CERAMIC CHIP	0.1MF		25V
C835	1-163-021-00	CERAMIC CHIP	0.01MF	10%	50V
C836	1-163-021-00	CERAMIC CHIP	0.01MF	10%	50V
C838	1-163-087-00	CERAMIC CHIP	4PF	0.25PF	50V
C850	1-163-021-00	CERAMIC CHIP	0.01MF	10%	50V
C851	1-163-121-00	CERAMIC CHIP	150PF	5%	50V
C852	1-163-117-00	CERAMIC CHIP	100PF	5%	50V
C853	1-163-121-00	CERAMIC CHIP	150PF	5%	50V
C854	1-163-109-00	CERAMIC CHIP	47PF	5%	50V
C855	1-163-038-00	CERAMIC CHIP	0.1MF		25V
C856	1-126-157-11	ELECT	10MF	20%	16V
C857	1-163-038-00	CERAMIC CHIP	0.1MF		25V

CONNECTOR

Ref.No	Part No.	Description
CN802	*1-564-021-11	PIN, CONNECTOR 11P
CN803	*1-564-017-00	PIN, CONNECTOR 7P
CN804	*1-564-031-00	PIN, CONNECTOR 6P

DIODE

Ref.No	Part No.	Description
D801	8-719-914-43	DIODE DAN202K
D802	8-719-914-43	DIODE DAN202K
D803	8-719-914-43	DIODE DAN202K

IC

Ref.No	Part No.	Description
IC801	8-759-320-52	IC HA118019NT

COIL

Ref.No	Part No.	Description	
L801	1-407-169-XX	INDUCTOR	100UH
L802	1-408-975-21	INDUCTOR	27UH
L803	1-408-970-21	INDUCTOR	10UH
L804	1-408-985-21	INDUCTOR	180UH
L805	1-407-169-XX	INDUCTOR	100UH
L806	1-407-169-XX	INDUCTOR	100UH
L807	1-408-977-21	INDUCTOR	39UH
L808	1-408-973-21	INDUCTOR	18UH
L809	1-408-973-21	INDUCTOR	18UH
L850	1-408-972-21	INDUCTOR	15UH
L851	1-407-169-XX	INDUCTOR	100UH

TRANSISTOR

Ref.No	Part No.	Description
Q801	8-729-100-76	TRANSISTOR 2SA812
Q802	8-729-901-81	TRANSISTOR 2SC2412K-T-96-R
Q803	8-729-901-81	TRANSISTOR 2SC2412K-T-96-R
Q804	8-729-901-01	TRANSISTOR DTC144EK
Q806	8-729-901-01	TRANSISTOR DTC144EK
Q850	8-729-101-07	TRANSISTOR 2SB798-T1DK
Q851	8-729-901-01	TRANSISTOR DTC144EK
Q852	8-729-100-75	TRANSISTOR 2SA812-M5
Q853	8-729-100-75	TRANSISTOR 2SA812-M5
Q854	8-729-901-01	TRANSISTOR DTC144EK

RESISTOR

Ref.No	Part No.	Description			Remark
R801	1-216-031-00	METAL GLAZE	180	5%	1/10W
R802	1-216-031-00	METAL GLAZE	180	5%	1/10W
R803	1-216-025-00	METAL GLAZE	100	5%	1/10W
R804	1-216-025-00	METAL GLAZE	100	5%	1/10W
R805	1-216-081-00	METAL GLAZE	22K	5%	1/10W
R806	1-216-113-00	METAL GLAZE	470K	5%	1/10W
R807	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R808	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R809	1-216-081-00	METAL GLAZE	22K	5%	1/10W
R810	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R811	1-216-049-00	METAL GLAZE	1K	5%	1/10W
R812	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W
R813	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W
R814	1-216-039-00	METAL GLAZE	390	5%	1/10W
R815	1-216-039-00	METAL GLAZE	390	5%	1/10W
R816	1-216-047-00	METAL GLAZE	820	5%	1/10W
R817	1-216-067-00	METAL GLAZE	5.6K	5%	1/10W
R818	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W
R819	1-216-041-00	METAL GLAZE	470	5%	1/10W
R820	1-216-045-00	METAL GLAZE	680	5%	1/10W
R821	1-216-043-00	METAL GLAZE	560	5%	1/10W
R822	1-216-049-00	METAL GLAZE	1K	5%	1/10W
R823	1-216-047-00	METAL GLAZE	820	5%	1/10W
R824	1-216-051-00	METAL GLAZE	1.2K	5%	1/10W
R826	1-216-109-00	METAL GLAZE	330K	5%	1/10W
R827	1-216-049-00	METAL GLAZE	1K	5%	1/10W
R828	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W
R829	1-216-055-00	METAL GLAZE	1.8K	5%	1/10W
R830	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R831	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R850	1-216-067-00	METAL GLAZE	5.6K	5%	1/10W
R851	1-216-043-00	METAL GLAZE	560	5%	1/10W
R852	1-216-049-00	METAL GLAZE	1K	5%	1/10W
R853	1-216-047-00	METAL GLAZE	820	5%	1/10W
R854	1-216-089-00	METAL GLAZE	47K	5%	1/10W
R855	1-216-093-00	METAL GLAZE	68K	5%	1/10W
R856	1-216-748-11	METAL GLAZE	39K	5%	1/10W

When indicating parts by reference number, please include the board name.

YC-55

Ref.No	Part No.	Description		Remark
	*A-6727-020-A	YC-55 BOARD, COMPLETE **********************		(Ref No. 5000 Series)

CAPACITOR

Ref.No	Part No.	Description		Remark
C701	1-163-021-00	CERAMIC CHIP 0.01MF		50V
C702	1-163-021-00	CERAMIC CHIP 0.01MF		50V
C703	1-126-151-11	ELECT 4.7MF	20%	16V
C704	1-124-638-11	ELECT 22MF	20%	6.3V
C705	1-163-021-00	CERAMIC CHIP 0.01MF		50V
C706	1-126-094-11	ELECT 4.7MF	20%	25V
C707	1-126-151-11	ELECT 4.7MF	20%	16V
C708	1-163-093-00	CERAMIC CHIP 10PF	5%	50V
C709	1-123-661-00	ELECT 100MF	20%	6.3V
C710	1-163-035-00	CERAMIC CHIP 0.047MF		50V
C711	1-163-129-00	CERAMIC CHIP 330PF	5%	50V
C712	1-163-131-00	CERAMIC CHIP 390PF	5%	50V
C713	1-163-139-00	CERAMIC CHIP 820PF	5%	50V
C714	1-163-021-00	CERAMIC CHIP 0.01MF		50V
C715	1-163-021-00	CERAMIC CHIP 0.01MF		50V
C718	1-126-151-11	ELECT 4.7MF	20%	16V
C723	1-163-021-00	CERAMIC CHIP 0.01MF		50V
C724	1-163-033-00	CERAMIC CHIP 0.022MF		50V
C725	1-163-021-00	CERAMIC CHIP 0.01MF		50V
C726	1-163-021-00	CERAMIC CHIP 0.01MF		50V
C727	1-163-021-00	CERAMIC CHIP 0.01MF		50V
C728	1-163-103-00	CERAMIC CHIP 27PF	5%	50V
C729	1-163-117-00	CERAMIC CHIP 100PF	5%	50V
C730	1-163-021-00	CERAMIC CHIP 0.01MF		50V
C731	1-123-661-00	ELECT 100MF	20%	6.3V
C732	1-163-117-00	CERAMIC CHIP 100PF	5%	50V
C733	1-163-105-00	CERAMIC CHIP 33PF	5%	50V
C734	1-163-133-00	CERAMIC CHIP 470PF	5%	50V
C735	1-135-149-21	TANTAL. CHIP 2.2MF	20%	10V
C736	1-163-117-00	CERAMIC CHIP 100PF	5%	50V
C737	1-163-021-00	CERAMIC CHIP 0.01MF		50V
C738	1-124-257-00	ELECT 2.2MF	20%	50V
C739	1-163-121-00	CERAMIC CHIP 150PF	5%	50V
C740	1-163-105-00	CERAMIC CHIP 33PF	5%	50V
C770	1-163-125-00	CERAMIC CHIP 220PF	5%	50V
C772	1-163-103-00	CERAMIC CHIP 27PF	5%	50V
C780	1-163-077-00	CERAMIC CHIP 0.1MF	10%	25V
C781	1-163-021-00	CERAMIC CHIP 0.01MF		50V
C782	1-163-113-00	CERAMIC CHIP 68PF	5%	50V
C783	1-163-129-00	CERAMIC CHIP 330PF	5%	50V
C785	1-163-021-00	CERAMIC CHIP 0.01MF		50V
C790	1-163-038-00	CERAMIC CHIP 0.1MF		25V
C801	1-163-033-00	CERAMIC CHIP 0.022MF		50V
C802	1-123-661-00	ELECT 100MF	20%	6.3V
C803	1-163-021-00	CERAMIC CHIP 0.01MF		50V
C804	1-163-077-00	CERAMIC CHIP 0.1MF	10%	25V
C805	1-163-033-00	CERAMIC CHIP 0.022MF		50V
C806	1-163-021-00	CERAMIC CHIP 0.01MF		50V
C807	1-163-021-00	CERAMIC CHIP 0.01MF		50V
C808	1-163-021-00	CERAMIC CHIP 0.01MF		50V
C809	1-163-129-00	CERAMIC CHIP 330PF	5%	50V
C810	1-163-129-00	CERAMIC CHIP 330PF	5%	50V
C812	1-163-021-00	CERAMIC CHIP 0.01MF		50V
C814	1-123-661-00	ELECT 100MF	20%	6.3V
C815	1-163-077-00	CERAMIC CHIP 0.1MF	10%	25V
C816	1-135-149-21	TANTAL. CHIP 2.2MF	20%	10V
C817	1-163-021-00	CERAMIC CHIP 0.01MF		50V
C818	1-163-036-00	CERAMIC CHIP 0.068MF		50V
C820	1-163-117-00	CERAMIC CHIP 100PF	5%	50V
C823	1-126-094-11	ELECT 4.7MF	20%	25V
C824	1-164-106-95	CERAMIC CHIP 0.056MF	5%	16V
C825	1-162-993-11	CERAMIC CHIP 0.22MF	10%	16V
C826	1-163-023-00	CERAMIC CHIP 0.015MF	10%	50V
C827	1-124-463-00	ELECT 0.1MF	20%	50V
C828	1-163-021-00	CERAMIC CHIP 0.01MF		50V
C829	1-163-021-00	CERAMIC CHIP 0.01MF		50V
C830	1-124-463-00	ELECT 0.1MF	20%	50V
C831	1-163-121-00	CERAMIC CHIP 150PF	5%	50V
C832	1-124-465-00	ELECT 0.47MF	20%	50V
C833	1-163-021-00	CERAMIC CHIP 0.01MF		50V
C835	1-163-021-00	CERAMIC CHIP 0.01MF		50V
C840	1-163-021-00	CERAMIC CHIP 0.01MF		50V
C841	1-163-021-00	CERAMIC CHIP 0.01MF		50V
C842	1-163-021-00	CERAMIC CHIP 0.01MF		50V
C860	1-123-661-00	ELECT 100MF	20%	6.3V

CONNECTOR

CN701	*1-563-258-11	SOCKET, CONNECTOR 15P
CN702	*1-563-258-11	SOCKET, CONNECTOR 15P
CN703	*1-566-123-11	CONNECTOR, BOARD TO BOARD 8P
CN704	*1-566-123-11	CONNECTOR, BOARD TO BOARD 8P

TRIMMER

CV801	1-141-291-11	CAP, TRIMMER

DIODE

D701	8-719-911-06	DIODE 1SS106
D702	8-719-100-05	DIODE 1S2837
D705	8-719-100-05	DIODE 1S2837
D801	8-719-100-05	DIODE 1S2837
D802	8-719-100-05	DIODE 1S2837

DELAY LINE

DL701	1-415-602-11	DELAY LINE, GLASS

FILTER

FL701	1-236-312-11	FILTER, BAND PASS
FL801	1-236-310-11	FILTER, BAND PASS
FL802	1-236-311-11	FILTER, BAND PASS

When indicating parts by reference number, please include the board name.

Ref.No	Part No.	Description				Remark
		IC				
IC701	8-759-420-07	IC AN3231K				
IC801	8-759-320-78	IC HA118016NT				
		COIL				
L701	1-407-169-XX	INDUCTOR	100UH			
L705	1-410-522-11	INDUCTOR	120UH			
L706	1-407-169-XX	INDUCTOR	100UH			
L707	1-410-520-11	INDUCTOR	82UH			
L708	1-410-520-11	INDUCTOR	82UH			
L720	1-408-417-00	INDUCTOR	47UH			
L726	1-408-424-00	INDUCTOR	180UH			
L801	1-407-169-XX	INDUCTOR	100UH			
L802	1-408-987-21	INDUCTOR	330UH			
L803	1-408-948-00	INDUCTOR	220UH			
L804	1-407-503-00	INDUCTOR	8.2MMH			
L806	1-408-969-21	INDUCTOR	8.2UH			
		TRANSISTOR				
Q702	8-729-100-76	TRANSISTOR 2SA812				
Q703	8-729-901-47	TRANSISTOR DTA143EK				
Q704	8-729-901-01	TRANSISTOR DTC144EK				
Q721	8-729-100-66	TRANSISTOR 2SC1623				
Q722	8-729-901-01	TRANSISTOR DTC144EK				
Q723	8-729-901-01	TRANSISTOR DTC144EK				
Q801	8-729-100-66	TRANSISTOR 2SC1623				
Q802	8-729-901-01	TRANSISTOR DTC144EK				
Q804	8-729-901-01	TRANSISTOR DTC144EK				
Q805	8-729-100-76	TRANSISTOR 2SA812				
Q807	8-729-100-66	TRANSISTOR 2SC1623				
Q808	8-729-100-66	TRANSISTOR 2SC1623				
Q811	8-729-901-01	TRANSISTOR DTC144EK				
		RESISTOR				
R701	1-216-105-00	METAL GLAZE	220K	5%	1/10W	
R702	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R703	1-216-071-00	METAL GLAZE	8.2K	5%	1/10W	
R704	1-216-069-00	METAL GLAZE	6.8K	5%	1/10W	
R705	1-216-067-00	METAL GLAZE	5.6K	5%	1/10W	
R706	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	
R707	1-216-052-00	METAL GLAZE	1.3K	5%	1/10W	
R708	1-216-036-00	METAL GLAZE	300	5%	1/10W	
R709	1-216-061-00	METAL GLAZE	3.3K	5%	1/10W	
R713	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	
R717	1-216-055-00	METAL GLAZE	1.8K	5%	1/10W	
R718	1-216-055-00	METAL GLAZE	1.8K	5%	1/10W	
R719	1-216-067-00	METAL GLAZE	5.6K	5%	1/10W	
R720	1-216-055-00	METAL GLAZE	1.8K	5%	1/10W	
R721	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R722	1-216-053-00	METAL GLAZE	1.5K	5%	1/10W	
R723	1-216-069-00	METAL GLAZE	6.8K	5%	1/10W	
R724	1-216-053-00	METAL GLAZE	1.5K	5%	1/10W	

Ref.No	Part No.	Description				Remark
R725	1-216-039-00	METAL GLAZE	390	5%	1/10W	
R726	1-216-047-00	METAL GLAZE	820	5%	1/10W	
R727	1-216-053-00	METAL GLAZE	1.5K	5%	1/10W	
R728	1-216-115-00	METAL GLAZE	560K	5%	1/10W	
R729	1-216-089-00	METAL GLAZE	47K	5%	1/10W	
R730	1-216-089-00	METAL GLAZE	47K	5%	1/10W	
R731	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R733	1-216-041-00	METAL GLAZE	470	5%	1/10W	
R741	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R755	1-216-129-00	METAL GLAZE	2.2M	5%	1/10W	
R761	1-216-089-00	METAL GLAZE	47K	5%	1/10W	
R762	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R763	1-216-061-00	METAL GLAZE	3.3K	5%	1/10W	
R764	1-216-061-00	METAL GLAZE	3.3K	5%	1/10W	
R765	1-216-055-00	METAL GLAZE	1.8K	5%	1/10W	
R770	1-216-296-00	METAL GLAZE	0	5%	1/8W	
R771	1-216-296-00	METAL GLAZE	0	5%	1/8W	
R772	1-216-296-00	METAL GLAZE	0	5%	1/8W	
R773	1-216-296-00	METAL GLAZE	0	5%	1/8W	
R774	1-216-085-00	METAL GLAZE	33K	5%	1/10W	
R774	1-216-296-00	METAL GLAZE	0	5%	1/8W	
R775	1-216-085-00	METAL GLAZE	33K	5%	1/10W	
R775	1-216-296-00	METAL GLAZE	0	5%	1/8W	
R776	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R776	1-216-296-00	METAL GLAZE	0	5%	1/8W	
R777	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R777	1-216-296-00	METAL GLAZE	0	5%	1/8W	
R778	1-216-041-00	METAL GLAZE	470	5%	1/10W	
R778	1-216-296-00	METAL GLAZE	0	5%	1/8W	
R779	1-216-041-00	METAL GLAZE	470	5%	1/10W	
R779	1-216-296-00	METAL GLAZE	0	5%	1/8W	
R780	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R780	1-216-296-00	METAL GLAZE	0	5%	1/8W	
R781	1-216-113-00	METAL GLAZE	470K	5%	1/10W	
R781	1-216-296-00	METAL GLAZE	0	5%	1/8W	
R782	1-216-296-00	METAL GLAZE	0	5%	1/8W	
R783	1-216-296-00	METAL GLAZE	0	5%	1/8W	
R784	1-216-296-00	METAL GLAZE	0	5%	1/8W	
R785	1-216-296-00	METAL GLAZE	0	5%	1/8W	
R786	1-216-296-00	METAL GLAZE	0	5%	1/8W	
R787	1-216-296-00	METAL GLAZE	0	5%	1/8W	
R801	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R802	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R803	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R804	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R805	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R806	1-216-069-00	METAL GLAZE	6.8K	5%	1/10W	
R807	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R808	1-216-051-00	METAL GLAZE	1.2K	5%	1/10W	
R809	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R810	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R811	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R812	1-216-061-00	METAL GLAZE	3.3K	5%	1/10W	

When indicating parts by reference number, please include the board name.

Ref.No	Part No.	Description				Remark
R813	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R813	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R816	1-216-097-00	METAL GLAZE	100K	5%	1/10W	
R817	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R827	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R828	1-216-035-00	METAL GLAZE	270	5%	1/10W	
R829	1-216-063-00	METAL GLAZE	3.9K	5%	1/10W	
R830	1-216-059-00	METAL GLAZE	2.7K	5%	1/10W	
R831	1-216-059-00	METAL GLAZE	2.7K	5%	1/10W	
R832	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R833	1-216-061-00	METAL GLAZE	3.3K	5%	1/10W	
R834	1-216-055-00	METAL GLAZE	1.8K	5%	1/10W	
R844	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	
R845	1-216-069-00	METAL GLAZE	6.8K	5%	1/10W	
R851	1-216-051-00	METAL GLAZE	1.2K	5%	1/10W	
R852	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R853	1-216-059-00	METAL GLAZE	2.7K	5%	1/10W	
R854	1-216-077-00	METAL GLAZE	15K	5%	1/10W	

VARIABLE RESISTOR

RV701	1-237-723-11	RES, ADJ, CARBON 4.7K
RV702	1-237-723-11	RES, ADJ, CARBON 4.7K
RV703	1-238-167-11	RES, ADJ, CARBON 22K
RV704	1-238-167-11	RES, ADJ, CARBON 22K
RV705	1-238-167-11	RES, ADJ, CARBON 22K
RV707	1-237-722-11	RES, ADJ, CARBON 2.2K
RV708	1-237-704-11	RES, ADJ, CARBON 10K
RV710	1-230-718-11	RES, ADJ, CARBON 1K
RV801	1-238-166-11	RES, ADJ, CARBON 1K

CRYSTAL

X801	1-567-504-11	OSCILLATOR, CRYSTAL (4.43MHz)

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*A-6726-016-A CD-12 BOARD, COMPLETE (Ref No. 3000 Series)
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CAPACITOR

C741	1-124-589-11	ELECT	47MF	20%	16V
C742	1-126-094-11	ELECT	4.7MF	20%	25V
C743	1-163-038-00	CERAMIC CHIP	0.1MF		25V
C744	1-126-154-11	ELECT	47MF	20%	6.3V
C745	1-163-119-00	CERAMIC CHIP	120PF	5%	50V
C746	1-163-021-00	CERAMIC CHIP	0.01MF		50V
C747	1-163-038-00	CERAMIC CHIP	0.1MF		25V
C748	1-163-099-00	CERAMIC CHIP	18PF	5%	50V
C749	1-163-038-00	CERAMIC CHIP	0.1MF		25V
C750	1-163-021-00	CERAMIC CHIP	0.01MF		50V
C751	1-163-038-00	CERAMIC CHIP	0.1MF		25V
C752	1-163-038-00	CERAMIC CHIP	0.1MF		25V
C753	1-124-589-11	ELECT	47MF	20%	16V
C754	1-163-103-00	CERAMIC CHIP	27PF	5%	50V
C755	1-163-115-00	CERAMIC CHIP	82PF	5%	50V
C756	1-163-119-00	CERAMIC CHIP	120PF	5%	50V
C757	1-163-126-00	CERAMIC CHIP	240PF	5%	50V
C763	1-126-151-11	ELECT	4.7MF	20%	16V
C834	1-130-472-00	MYLAR	0.0012MF	5%	50V
C837	1-163-021-00	CERAMIC CHIP	0.01MF		50V
C838	1-124-257-00	ELECT	2.2MF	20%	50V
C839	1-124-257-00	ELECT	2.2MF	20%	50V
C861	1-163-035-00	CERAMIC CHIP	0.047MF		50V
C862	1-124-229-00	ELECT	33MF	20%	10V
C865	1-163-133-00	CERAMIC CHIP	470PF	5%	50V

FILTER

CF701	1-527-849-00	FILTER, CERAMIC

CONNECTOR

CN705	*1-563-310-11	CONNECTOR, BOARD TO BOARD 8P
CN706	*1-563-310-11	CONNECTOR, BOARD TO BOARD 8P

DIODE

D704	8-719-100-05	DIODE 1S2837

IC

IC702	8-752-321-89	IC CXL5003P
IC802	8-759-804-59	IC LA7311

COIL

L708	1-407-169-XX	INDUCTOR	100UH
L709	1-407-169-XX	INDUCTOR	100UH
L710	1-410-515-11	INDUCTOR	33UH
L711	1-408-424-00	INDUCTOR	180UH
L712	1-410-509-11	INDUCTOR	10UH
L713	1-408-411-00	INDUCTOR	15UH
L714	1-410-513-11	INDUCTOR	22UH
L715	1-410-751-41	INDUCTOR	0.56UH
L716	1-408-408-00	INDUCTOR	8.2UH
L727	1-408-982-31	INDUCTOR	100UH
L807	1-407-499-00	INDUCTOR	3.9MMH

TRANSISTOR

Q705	8-729-100-66	TRANSISTOR 2SC1623
Q706	8-729-100-76	TRANSISTOR 2SA812
Q707	8-729-100-66	TRANSISTOR 2SC1623
Q708	8-729-100-76	TRANSISTOR 2SA812
Q709	8-729-100-66	TRANSISTOR 2SC1623
Q710	8-729-100-66	TRANSISTOR 2SC1623
Q711	8-729-100-76	TRANSISTOR 2SA812
Q712	8-729-901-06	TRANSISTOR DTA144EK
Q806	8-729-102-62	TRANSISTOR 2SC1623

RESISTOR

R734	1-216-083-00	METAL GLAZE	27K	5%	1/10W
R735	1-216-073-00	METAL GLAZE	10K	5%	1/10W

When indicating parts by reference number, please include the board name.

Ref.No	Part No.	Description				Remark
R736	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R737	1-216-041-00	METAL GLAZE	470	5%	1/10W	
R738	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R739	1-216-083-00	METAL GLAZE	27K	5%	1/10W	
R740	1-216-083-00	METAL GLAZE	27K	5%	1/10W	
R742	1-216-043-00	METAL GLAZE	560	5%	1/10W	
R743	1-216-047-00	METAL GLAZE	820	5%	1/10W	
R744	1-216-121-00	METAL GLAZE	1M	5%	1/10W	
R745	1-216-041-00	METAL GLAZE	470	5%	1/10W	
R746	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R747	1-216-039-00	METAL GLAZE	390	5%	1/10W	
R749	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R750	1-216-037-00	METAL GLAZE	330	5%	1/10W	
R751	1-216-037-00	METAL GLAZE	330	5%	1/10W	
R752	1-216-037-00	METAL GLAZE	330	5%	1/10W	
R753	1-216-047-00	METAL GLAZE	820	5%	1/10W	
R754	1-216-039-00	METAL GLAZE	390	5%	1/10W	
R789	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	
R790	1-216-067-00	METAL GLAZE	5.6K	5%	1/10W	
R819	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	
R821	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R822	1-216-047-00	METAL GLAZE	820	5%	1/10W	
R823	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R824	1-216-083-00	METAL GLAZE	27K	5%	1/10W	
R825	1-216-083-00	METAL GLAZE	27K	5%	1/10W	

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*A-6727-026-A DA-12 BOARD, COMPLETE (Ref No. 4000 Series)
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CAPACITOR

Ref.No	Part No.	Description				Remark
C103	1-124-438-00	ELECT	1MF	20%	50V	
C104	1-124-499-11	ELECT	1MF	20%	50V	
C105	1-163-141-00	CERAMIC CHIP	0.001MF	5%	50V	
C106	1-124-438-00	ELECT	1MF	20%	50V	
C107	1-126-157-11	ELECT	10MF	20%	16V	
C108	1-123-661-00	ELECT	100MF	20%	6.3V	
C109	1-163-021-00	CERAMIC CHIP	0.01MF		50V	
C110	1-126-157-11	ELECT	10MF	20%	16V	
C111	1-124-589-11	ELECT	47MF	20%	16V	
C112	1-123-661-00	ELECT	100MF	20%	6.3V	
C113	1-163-100-00	CERAMIC CHIP	20PF	5%	50V	
C114	1-163-125-00	CERAMIC CHIP	220PF	5%	50V	
C116	1-163-111-00	CERAMIC CHIP	56PF	5%	50V	
C121	1-124-279-11	ELECT	3.3MF	20%	25V	
C122	1-163-141-00	CERAMIC CHIP	0.001MF	5%	50V	
C123	1-163-141-00	CERAMIC CHIP	0.001MF	5%	50V	
C124	1-163-077-00	CERAMIC CHIP	0.1MF	10%	25V	
C125	1-124-438-00	ELECT	1MF	20%	50V	
C126	1-123-661-00	ELECT	100MF	20%	6.3V	
C127	1-163-021-00	CERAMIC CHIP	0.01MF		50V	
C128	1-163-103-00	CERAMIC CHIP	27PF	5%	50V	
C129	1-163-145-00	CERAMIC CHIP	0.0015MF	10%	50V	
C130	1-163-137-00	CERAMIC CHIP	680PF	5%	50V	
C131	1-124-257-00	ELECT	2.2MF	20%	50V	
C132	1-130-477-00	MYLAR	0.0033MF	5%	50V	
C141	1-124-279-11	ELECT	3.3MF	20%	25V	
C142	1-163-141-00	CERAMIC CHIP	0.001MF	5%	50V	
C143	1-163-141-00	CERAMIC CHIP	0.001MF	5%	50V	
C144	1-163-077-00	CERAMIC CHIP	0.1MF	10%	25V	
C145	1-124-438-00	ELECT	1MF	20%	50V	
C146	1-124-442-00	ELECT	330MF	20%	6.3V	
C147	1-163-021-00	CERAMIC CHIP	0.01MF		50V	
C148	1-163-103-00	CERAMIC CHIP	27PF	5%	50V	
C149	1-163-145-00	CERAMIC CHIP	0.0015MF	10%	50V	
C150	1-163-137-00	CERAMIC CHIP	680PF	5%	50V	
C153	1-124-589-11	ELECT	47MF	20%	16V	
C154	1-123-661-00	ELECT	100MF	20%	6.3V	
C155	1-163-021-00	CERAMIC CHIP	0.01MF		50V	
C156	1-163-021-00	CERAMIC CHIP	0.01MF		50V	
C157	1-123-661-00	ELECT	100MF	20%	6.3V	
C158	1-163-243-91	CERAMIC CHIP	47PF	5%	50V	
C159	1-163-243-91	CERAMIC CHIP	47PF	5%	50V	
C173	1-130-471-00	MYLAR	0.001MF	5%	50V	
C174	1-126-157-11	ELECT	10MF	20%	16V	
C175	1-163-021-00	CERAMIC CHIP	0.01MF	10%	50V	
C176	1-163-021-00	CERAMIC CHIP	0.01MF	10%	50V	
C177	1-124-438-00	ELECT	1MF	20%	50V	
C178	1-163-021-00	CERAMIC CHIP	0.01MF		50V	
C179	1-124-471-00	ELECT	1000MF	20%	6.3V	
C180	1-124-438-00	ELECT	1MF	20%	50V	
C181	1-136-153-00	MYLAR	0.01MF	10%	50V	
C182	1-163-135-00	CERAMIC CHIP	560PF	5%	50V	
C183	1-163-097-00	CERAMIC CHIP	15PF	5%	50V	
C184	1-163-021-00	CERAMIC CHIP	0.01MF	10%	50V	
C185	1-163-141-00	CERAMIC CHIP	0.001MF		50V	
C186	1-163-141-00	CERAMIC CHIP	0.001MF		50V	
C187	1-136-161-00	MYLAR	0.047MF	10%	50V	
C188	1-136-161-00	MYLAR	0.047MF	10%	50V	
C189	1-124-465-00	ELECT	0.47MF	20%	50V	
C190	1-124-438-00	ELECT	1MF	20%	50V	
C191	1-163-021-00	CERAMIC CHIP	0.01MF	10%	50V	
C192	1-123-661-00	ELECT	100MF	20%	6.3V	
C193	1-163-035-00	CERAMIC CHIP	0.047MF		50V	
C195	1-163-125-00	CERAMIC CHIP	220PF	5%	50V	
C196	1-163-117-00	CERAMIC CHIP	100PF	5%	50V	
C198	1-163-125-00	CERAMIC CHIP	220PF	5%	50V	
C199	1-163-117-00	CERAMIC CHIP	100PF	5%	50V	
C203	1-130-471-00	MYLAR	0.001MF	5%	50V	
C204	1-163-021-00	CERAMIC CHIP	0.01MF	10%	50V	
C205	1-163-021-00	CERAMIC CHIP	0.01MF	10%	50V	
C206	1-163-021-00	CERAMIC CHIP	0.01MF	10%	50V	
C207	1-124-438-00	ELECT	1MF	20%	50V	
C208	1-163-021-00	CERAMIC CHIP	0.01MF		50V	
C209	1-124-471-00	ELECT	1000MF	20%	6.3V	
C210	1-124-438-00	ELECT	1MF	20%	50V	

When indicating parts by reference number, please include the board name.

DA-12

Ref.No	Part No.	Description			Remark
C211	1-136-153-00	MYLAR	0.01MF	10%	50V
C212	1-163-135-00	CERAMIC CHIP	560PF	5%	50V
C213	1-163-097-00	CERAMIC CHIP	15PF	5%	50V
C214	1-163-021-00	CERAMIC CHIP	0.01MF	10%	50V
C215	1-163-021-00	CERAMIC CHIP	0.01MF		50V
C216	1-123-661-00	ELECT	100MF	20%	6.3V
C217	1-136-161-00	MYLAR	0.047MF	10%	50V
C218	1-136-161-00	MYLAR	0.047MF	10%	50V
C219	1-163-035-00	CERAMIC CHIP	0.047MF		50V
C220	1-124-465-00	ELECT	0.47MF	20%	50V
C221	1-124-438-00	ELECT	1MF	20%	50V
C232	1-124-438-00	ELECT	1MF	20%	50V
C233	1-136-161-00	MYLAR	0.047MF	10%	50V
C234	1-126-157-11	ELECT	10MF	20%	16V
C235	1-163-021-00	CERAMIC CHIP	0.01MF	10%	50V
C236	1-163-021-00	CERAMIC CHIP	0.01MF	10%	50V
C237	1-123-661-00	ELECT	100MF	20%	6.3V
C238	1-163-021-00	CERAMIC CHIP	0.01MF		50V
C239	1-124-589-11	ELECT	47MF	20%	16V
C240	1-136-161-00	MYLAR	0.047MF	10%	50V
C241	1-163-021-00	CERAMIC CHIP	0.01MF	10%	50V
C242	1-163-097-00	CERAMIC CHIP	15PF	5%	50V
C243	1-163-105-00	CERAMIC CHIP	33PF	5%	50V
C245	1-123-661-00	ELECT	100MF	20%	6.3V
C246	1-163-021-00	CERAMIC CHIP	0.01MF	10%	50V
C247	1-163-105-00	CERAMIC CHIP	33PF	5%	50V
C248	1-163-091-00	CERAMIC CHIP	8PF	0.25PF	50V
C249	1-163-021-00	CERAMIC CHIP	0.01MF	10%	50V
C250	1-163-021-00	CERAMIC CHIP	0.01MF	10%	50V
C351	1-124-438-00	ELECT	1MF	20%	50V
C352	1-136-161-00	MYLAR	0.047MF	10%	50V
C353	1-124-438-00	ELECT	1MF	20%	50V
C356	1-163-021-00	CERAMIC CHIP	0.01MF		50V
C357	1-163-021-00	CERAMIC CHIP	0.01MF		50V
C358	1-163-021-00	CERAMIC CHIP	0.01MF		50V
C359	1-163-021-00	CERAMIC CHIP	0.01MF		50V
C360	1-163-021-00	CERAMIC CHIP	0.01MF		50V

CONNECTOR

CN101	*1-566-282-11	CONNECTOR, BOARD TO BOARD 20P
CN102	*1-566-282-11	CONNECTOR, BOARD TO BOARD 20P

TRIMMER

CT101	1-141-245-00	TRIMMER, CERAMIC 30P
CT102	1-141-245-00	TRIMMER, CERAMIC 30P

FILTER

FL102	1-236-359-11	LPF
FL103	1-235-437-11	BPF, PB C
FL104	1-235-437-11	BPF, PB C
FL105	1-236-360-11	BPF, C

IC

Ref.No	Part No.	Description	Remark
IC101	8-759-631-71	IC M52685FP-T1	
IC102	8-759-631-70	IC M52684AFP-T1	
IC103	8-759-631-70	IC M52684AFP-T1	
IC104	8-759-603-54	IC M51271FP	
IC105	8-759-631-08	IC M51279FP	
IC106	8-759-631-67	IC M51272FP-T1	
IC107	8-759-007-69	IC MC74HC157F	
IC108	8-759-009-07	IC MC14053BF	

COIL

L101	1-407-169-XX	INDUCTOR	100UH
L102	1-408-980-21	INDUCTOR	68UH
L104	1-407-169-XX	INDUCTOR	100UH
L121	1-407-169-XX	INDUCTOR	100UH
L122	1-408-247-00	INDUCTOR	33MMH
L141	1-407-169-XX	INDUCTOR	100UH
L142	1-407-169-XX	INDUCTOR	100UH
L143	1-407-169-XX	INDUCTOR	100UH
L171	1-407-169-XX	INDUCTOR	100UH
L172	1-407-169-XX	INDUCTOR	100UH
L201	1-407-169-XX	INDUCTOR	100UH
L231	1-407-169-XX	INDUCTOR	100UH

TRANSISTOR

Q101	8-729-100-76	TRANSISTOR 2SA1179M6-TB
Q102	8-729-100-76	TRANSISTOR 2SA1179M6-TB
Q103	8-729-271-23	TRANSISTOR 2SC2712
Q104	8-729-901-03	TRANSISTOR DTC144WK
Q105	8-729-901-03	TRANSISTOR DTC144WK
Q121	8-729-271-23	TRANSISTOR 2SC2712
Q122	8-729-271-23	TRANSISTOR 2SC2712
Q144	8-729-271-23	TRANSISTOR 2SC2712
Q171	8-729-100-76	TRANSISTOR 2SA1179M6-TB
Q172	8-729-100-76	TRANSISTOR 2SA1179M6-TB
Q232	8-729-271-23	TRANSISTOR 2SC2712
Q233	8-729-100-76	TRANSISTOR 2SA1179M6-TB

RESISTOR

R101	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W
R102	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W
R105	1-216-049-00	METAL GLAZE	1K	5%	1/10W
R106	1-216-049-00	METAL GLAZE	1K	5%	1/10W
R107	1-216-049-00	METAL GLAZE	1K	5%	1/10W
R108	1-216-295-00	METAL GLAZE	0	5%	1/10W
R109	1-216-049-00	METAL GLAZE	1K	5%	1/10W
R110	1-216-101-00	METAL GLAZE	150K	5%	1/10W
R111	1-216-041-00	METAL GLAZE	470	5%	1/10W
R112	1-216-053-00	METAL GLAZE	1.5K	5%	1/10W
R113	1-216-035-00	METAL GLAZE	270	5%	1/10W
R114	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R115	1-216-101-00	METAL GLAZE	150K	5%	1/10W

When indicating parts by reference number, please include the board name.

Ref.No	Part No.	Description				Remark
R116	1-216-041-00	METAL GLAZE	470	5%	1/10W	
R117	1-216-053-00	METAL GLAZE	1.5K	5%	1/10W	
R118	1-216-035-00	METAL GLAZE	270	5%	1/10W	
R119	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R121	1-216-047-00	METAL GLAZE	820	5%	1/10W	
R122	1-216-051-00	METAL GLAZE	1.2K	5%	1/10W	
R123	1-216-119-00	METAL GLAZE	820K	5%	1/10W	
R124	1-216-075-00	METAL GLAZE	12K	5%	1/10W	
R125	1-216-091-00	METAL GLAZE	56K	5%	1/10W	
R126	1-216-077-00	METAL GLAZE	15K	5%	1/10W	
R127	1-216-113-00	METAL GLAZE	470K	5%	1/10W	
R128	1-216-053-00	METAL GLAZE	1.5K	5%	1/10W	
R129	1-216-021-00	METAL GLAZE	68	5%	1/10W	
R130	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R132	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	
R133	1-216-095-00	METAL GLAZE	82K	5%	1/10W	
R134	1-216-748-11	METAL GLAZE	39K	5%	1/10W	
R135	1-216-295-00	METAL GLAZE	0	5%	1/10W	
R136	1-216-055-00	METAL GLAZE	1.8K	5%	1/10W	
R137	1-216-055-00	METAL GLAZE	1.8K	5%	1/10W	
R138	1-216-295-00	METAL GLAZE	0	5%	1/10W	
R139	1-216-055-00	METAL GLAZE	1.8K	5%	1/10W	
R140	1-216-055-00	METAL GLAZE	1.8K	5%	1/10W	
R141	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R144	1-216-119-00	METAL GLAZE	820K	5%	1/10W	
R145	1-216-075-00	METAL GLAZE	12K	5%	1/10W	
R146	1-216-091-00	METAL GLAZE	56K	5%	1/10W	
R147	1-216-077-00	METAL GLAZE	15K	5%	1/10W	
R148	1-216-083-00	METAL GLAZE	27K	5%	1/10W	
R149	1-216-084-00	METAL GLAZE	30K	5%	1/10W	
R151	1-216-113-00	METAL GLAZE	470K	5%	1/10W	
R152	1-216-053-00	METAL GLAZE	1.5K	5%	1/10W	
R153	1-216-021-00	METAL GLAZE	68	5%	1/10W	
R154	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R157	1-216-748-11	METAL GLAZE	39K	5%	1/10W	
R158	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	
R159	1-216-095-00	METAL GLAZE	82K	5%	1/10W	
R160	1-216-041-00	METAL GLAZE	470	5%	1/10W	
R161	1-216-041-00	METAL GLAZE	470	5%	1/10W	
R162	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R163	1-216-295-00	METAL GLAZE	0	5%	1/10W	
R164	1-216-053-00	METAL GLAZE	1.5K	5%	1/10W	
R165	1-216-051-00	METAL GLAZE	1.2K	5%	1/10W	
R166	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R167	1-216-679-11	METAL CHIP	15K	0.50%	1/10W	
R168	1-216-685-11	METAL CHIP	27K	0.50%	1/10W	
R169	1-216-047-00	METAL GLAZE	820	5%	1/10W	
R171	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R172	1-216-069-00	METAL GLAZE	6.8K	5%	1/10W	
R173	1-216-058-00	METAL GLAZE	2.4K	5%	1/10W	
R174	1-216-064-00	METAL GLAZE	4.3K	5%	1/10W	
R175	1-216-685-11	METAL CHIP	27K	0.50%	1/10W	
R176	1-216-679-11	METAL CHIP	15K	0.50%	1/10W	

Ref.No	Part No.	Description				Remark
R177	1-216-053-00	METAL GLAZE	1.5K	5%	1/10W	
R178	1-216-295-00	METAL GLAZE	0	5%	1/10W	
R179	1-216-295-00	METAL GLAZE	0	5%	1/10W	
R180	1-216-295-00	METAL GLAZE	0	5%	1/10W	
R182	1-216-295-00	METAL GLAZE	0	5%	1/10W	
R190	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R191	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R192	1-216-085-00	METAL GLAZE	33K	5%	1/10W	
R193	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R194	1-216-041-00	METAL GLAZE	470	5%	1/10W	
R195	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R197	1-216-047-00	METAL GLAZE	820	5%	1/10W	
R198	1-216-051-00	METAL GLAZE	1.2K	5%	1/10W	
R199	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R200	1-216-067-00	METAL GLAZE	5.6K	5%	1/10W	
R201	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R202	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R204	1-216-048-00	METAL GLAZE	910	5%	1/10W	
R205	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R207	1-216-295-00	METAL GLAZE	0	5%	1/10W	
R211	1-216-295-00	METAL GLAZE	0	5%	1/10W	
R212	1-216-295-00	METAL GLAZE	0	5%	1/10W	
R213	1-216-295-00	METAL GLAZE	0	5%	1/10W	
R217	1-216-041-00	METAL GLAZE	470	5%	1/10W	
R218	1-216-041-00	METAL GLAZE	470	5%	1/10W	
R219	1-216-041-00	METAL GLAZE	470	5%	1/10W	
R220	1-216-041-00	METAL GLAZE	470	5%	1/10W	
R221	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	
R222	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R224	1-216-295-00	METAL GLAZE	0	5%	1/10W	
R225	1-216-295-00	METAL GLAZE	0	5%	1/10W	
R226	1-216-295-00	METAL GLAZE	0	5%	1/10W	
R227	1-216-097-00	METAL GLAZE	100K	5%	1/10W	
R229	1-216-091-00	METAL GLAZE	56K	5%	1/10W	
R230	1-216-091-00	METAL GLAZE	56K	5%	1/10W	
R231	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R232	1-216-073-00	METAL GLAZE	10K	5%	1/10W	

VARIABLE RESISTOR

RV101	1-228-996-00	RES, ADJ, CARBON 47K
RV102	1-228-996-00	RES, ADJ, CARBON 47K
RV103	1-228-994-00	RES, ADJ, CARBON 10K
RV104	1-228-994-00	RES, ADJ, CARBON 10K
RV105	1-228-996-00	RES, ADJ, CARBON 47K

CRYSTAL

X101	1-577-165-11	VIBLATOR, CERAMIC
X102	1-577-165-11	VIBLATOR, CERAMIC
X103	1-567-733-11	VIBRATOR, CRYSTAL (17.7MHz)
X104	1-567-733-11	VIBRATOR, CRYSTAL (17.7MHz)

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When indicating parts by reference number, please include the board name.

RL-21 MF-44 IO-14

Ref.No	Part No.	Description	Remark
	*1-627-854-11	RL-21 BOARD ************	(Ref No. 6000 Series)

CONNECTOR

Ref.No	Part No.	Description	Remark
CN101	*1-506-438-21	PIN, CONNECTOR 4P	
CN103	*1-506-481-11	PIN, CONNECTOR 2P	
CN104	*1-506-482-11	PIN, CONNECTOR 3P	
CN105	*1-506-482-11	PIN, CONNECTOR 3P	

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Ref.No	Part No.	Description	Remark
	*1-627-748-13	MF-44 BOARD ************	(Ref No. 8000 Series)

CONNECTOR

Ref.No	Part No.	Description	Remark
CN691	*1-506-473-11	PIN, CONNECTOR 8P	

RESISTOR

Ref.No	Part No.	Description	Remark
R691	1-216-031-00	METAL GLAZE 180 5% 1/10W	

SWITCH

Ref.No	Part No.	Description	Remark
S691	1-570-101-71	SWITCH, KEY BOARD (ON/STANDBY)	

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Ref.No	Part No.	Description	Remark
	*A-6729-817-A	IO-14 BOARD, COMPLETE **********************	(Ref No. 7000 Series)

CAPACITOR

Ref.No	Part No.	Description				Remark
C924	1-163-021-00	CERAMIC CHIP	0.01MF	10%	50V	
C925	1-124-589-11	ELECT	47MF	20%	16V	
C926	1-126-157-11	ELECT	10MF	20%	16V	
C927	1-126-157-11	ELECT	10MF	20%	16V	
C928	1-163-141-00	CERAMIC CHIP	0.001MF	5%	50V	
C929	1-163-141-00	CERAMIC CHIP	0.001MF	5%	50V	
C933	1-163-141-00	CERAMIC CHIP	0.001MF	5%	50V	
C935	1-163-141-00	CERAMIC CHIP	0.001MF	5%	50V	
C937	1-163-141-00	CERAMIC CHIP	0.001MF	5%	50V	
C939	1-163-141-00	CERAMIC CHIP	0.001MF	5%	50V	
C954	1-126-157-11	ELECT	10MF	20%	16V	
C961	1-163-035-00	CERAMIC CHIP	0.047MF		50V	
C962	1-163-035-00	CERAMIC CHIP	0.047MF		50V	
C963	1-163-035-00	CERAMIC CHIP	0.047MF		50V	

CONNECTOR

Ref.No	Part No.	Description	Remark
CN901	1-565-510-11	SOCKET, CONNECTOR 16P	
CN902	*1-562-638-11	SOCKET, CONNECTOR 8P	

JACK

Ref.No	Part No.	Description	Remark
CNJ901	1-563-467-11	SOCKET, SMALL TYPE 5P (CONTROL L)	
CNJ902	1-561-534-41	SOCKET 21P (EUROCONNECTOR)	

DIODE

Ref.No	Part No.	Description	Remark
D903	8-719-110-72	DIODE RD30ES-B2	
D904	8-719-110-72	DIODE RD30ES-B2	
D905	8-719-110-72	DIODE RD30ES-B2	
D906	8-719-110-72	DIODE RD30ES-B2	
D907	8-719-110-72	DIODE RD30ES-B2	
D908	8-719-110-72	DIODE RD30ES-B2	
D951	8-719-109-93	DIODE RD6.2ESB2	
D952	8-719-911-19	DIODE 1SS119	

COIL

Ref.No	Part No.	Description		Remark
L901	1-408-974-21	INDUCTOR	22UH	
L903	1-408-989-21	INDUCTOR	470UH	
L904	1-408-989-21	INDUCTOR	470UH	
L906	1-408-989-21	INDUCTOR	470UH	

TRANSISTOR

Ref.No	Part No.	Description	Remark
Q905	8-729-100-66	TRANSISTOR 2SC1623	
Q906	8-729-907-32	TRANSISTOR 2SD1468S-Q	
Q908	8-729-901-06	TRANSISTOR DTA144EK	
Q909	8-729-901-01	TRANSISTOR DTC144EK	

RESISTOR

Ref.No	Part No.	Description				Remark
R901	1-249-422-11	CARBON	2.7K	5%	1/4W	
R921	1-216-083-00	METAL GLAZE	27K	5%	1/10W	
R922	1-216-079-00	METAL GLAZE	18K	5%	1/10W	
R923	1-216-045-00	METAL GLAZE	680	5%	1/10W	
R925	1-216-045-00	METAL GLAZE	680	5%	1/10W	
R926	1-216-097-00	METAL GLAZE	100K	5%	1/10W	
R927	1-216-055-00	METAL GLAZE	1.8K	5%	1/10W	
R928	1-216-045-00	METAL GLAZE	680	5%	1/10W	
R930	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R931	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R934	1-249-417-11	CARBON	1K	5%	1/4W	
R938	1-216-043-00	METAL GLAZE	560	5%	1/10W	
R951	1-216-022-00	METAL GLAZE	75	5%	1/10W	
R952	1-247-802-11	CARBON	62	5%	1/4W	
R953	1-249-426-11	CARBON	5.6K	5%	1/4W	
R954	1-249-426-11	CARBON	5.6K	5%	1/4W	

VARIABLE RESISTOR

Ref.No	Part No.	Description	Remark
RV901	1-230-820-11	RES, VAR, CARBON 100K	

SWITCH

Ref.No	Part No.	Description	Remark
S902	1-570-865-11	SWITCH, SLIDE (MASTER/SLAVE)	
S903	1-570-854-11	SWITCH, SLIDE (VTR 1/2/3)	

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When indicating parts by reference number, please include the board name.

Ref.No	Part No.	Description			Remark
	*1-628-754-11	TK-6 BOARD ***********			(Ref No. 6000 Series)

CONNECTOR

Ref.No	Part No.	Description
CN451	1-565-819-11	CONNECTOR, FPC (DIP TYPE) 25P
CN452	1-565-818-11	CONNECTOR, FPC (DIP TYPE) 22P
CN454	*1-506-472-11	PIN, CONNECTOR 7P
CN455	*1-506-471-11	PIN, CONNECTOR 6P
CN461	*1-506-474-11	PIN, CONNECTOR 9P
CN462	*1-506-487-11	PIN, CONNECTOR 8P
CN463	*1-506-476-11	PIN, CONNECTOR 11P
CN464	*1-506-491-11	PIN, CONNECTOR 12P
CN467	1-506-483-21	PIN, CONNECTOR 4P (SLV-402)

RESISTOR

Ref.No	Part No.	Description			
R604	1-216-097-00	METAL GLAZE	100K	5%	1/10W

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Ref.No	Part No.	Description	Remark
	*1-629-276-11	PS-213 BOARD *************	(Ref No. 9000 Series)

CAPACITOR

Ref.No	Part No.	Description			
C735	1-124-927-11	ELECT	4.7MF	20%	50V

CONNECTOR

Ref.No	Part No.	Description
CN724	*1-506-474-11	PIN, CONNECTOR 9P

IC

Ref.No	Part No.	Description
IC720	⚠8-749-920-35	IC STK5487

RESISTOR

Ref.No	Part No.	Description			
R720	1-249-423-11	CARBON	3.3K	5%	1/4W
R721	1-249-424-11	CARBON	3.9K	5%	1/4W
R722	1-249-415-11	CARBON	680	5%	1/4W

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Ref.No	Part No.	Description	Remark
	*1-629-277-11	DS-34 BOARD ************	(Ref No. 9000 Series)

DIODE

Ref.No	Part No.	Description
D720	⚠8-719-309-99	DIODE RBV-406B

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Ref.No	Part No.	Description	Remark
	*1-628-753-11	TR-32 BOARD ************	(Ref No. 6000 Series)

TRANSISTOR

Ref.No	Part No.	Description
Q499	⚠8-729-804-17	TRANSISTOR 2SD1666-R

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Ref.No	Part No.	Description	Remark
	*A-6727-027-A	DB-3 BOARD, COMPLETE *********************	(Ref No. 5000 Series)
	3-727-755-02	HOLDER, DG	
	7-685-645-79	SCREW +BVTP 3X6 TYPE2 IT-3	
	7-685-645-79	SCREW +BVTP 3X6 TYPE2	

CAPACITOR

Ref.No	Part No.	Description			
C251	1-163-121-00	CERAMIC CHIP	150PF	5%	50V
C252	1-163-121-00	CERAMIC CHIP	150PF	5%	50V
C254	1-163-121-00	CERAMIC CHIP	150PF	5%	50V
C255	1-163-121-00	CERAMIC CHIP	150PF	5%	50V
C257	1-163-021-00	CERAMIC CHIP	0.01MF	10%	50V
C258	1-163-021-00	CERAMIC CHIP	0.01MF	10%	50V
C259	1-163-021-00	CERAMIC CHIP	0.01MF	10%	50V
C260	1-163-021-00	CERAMIC CHIP	0.01MF	10%	50V
C261	1-123-661-00	ELECT	100MF	20%	6.3V
C262	1-163-021-00	CERAMIC CHIP	0.01MF	10%	50V
C263	1-163-088-00	CERAMIC CHIP	5PF	0.25PF	50V
C264	1-163-088-00	CERAMIC CHIP	5PF	0.25PF	50V
C265	1-123-661-00	ELECT	100MF	20%	6.3V
C266	1-163-038-00	CERAMIC CHIP	0.1MF		25V
C267	1-123-661-00	ELECT	100MF	20%	6.3V
C268	1-163-038-00	CERAMIC CHIP	0.1MF		25V
C269	1-124-589-11	ELECT	47MF	20%	16V
C270	1-124-589-11	ELECT	47MF	20%	16V
C271	1-124-589-11	ELECT	47MF	20%	16V
C272	1-124-438-00	ELECT	1MF	20%	50V
C273	1-124-438-00	ELECT	1MF	20%	50V
C274	1-124-438-00	ELECT	1MF	20%	50V
C275	1-123-661-00	ELECT	100MF	20%	6.3V
C276	1-163-021-00	CERAMIC CHIP	0.01MF	10%	50V
C277	1-163-100-00	CERAMIC CHIP	20PF	5%	50V
C278	1-163-105-00	CERAMIC CHIP	33PF	5%	50V
C279	1-124-438-00	ELECT	1MF	20%	50V
C280	1-123-661-00	ELECT	100MF	20%	6.3V
C281	1-163-035-00	CERAMIC CHIP	0.047MF		50V
C282	1-163-038-00	CERAMIC CHIP	0.1MF		25V
C283	1-123-661-00	ELECT	100MF	20%	6.3V
C284	1-123-661-00	ELECT	100MF	20%	6.3V
C285	1-163-038-00	CERAMIC CHIP	0.1MF		25V
C286	1-163-035-00	CERAMIC CHIP	0.047MF		50V
C287	1-123-661-00	ELECT	100MF	20%	6.3V
C288	1-123-661-00	ELECT	100MF	20%	6.3V
C289	1-163-038-00	CERAMIC CHIP	0.1MF		25V
C290	1-123-661-00	ELECT	100MF	20%	6.3V
C291	1-123-661-00	ELECT	100MF	20%	6.3V
C292	1-163-038-00	CERAMIC CHIP	0.1MF		25V
C293	1-123-661-00	ELECT	100MF	20%	6.3V
C294	1-163-100-00	CERAMIC CHIP	20PF	5%	50V
C295	1-163-038-00	CERAMIC CHIP	0.1MF		25V
C296	1-163-038-00	CERAMIC CHIP	0.1MF		25V
C297	1-163-038-00	CERAMIC CHIP	0.1MF		25V

When indicating parts by reference number, please include the board name.

Note: The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.

DB-3

Ref.No	Part No.	Description	Remark
C298	1-124-589-11	ELECT 47MF 20% 16V	
C299	1-163-021-00	CERAMIC CHIP 0.01MF 10% 50V	
C300	1-163-021-00	CERAMIC CHIP 0.01MF 10% 50V	
		CONNECTOR	
CN251	*1-565-733-11	PIN, BOARD TO BOARD (L TYPE) 16P	
CN252	*1-565-733-11	PIN, BOARD TO BOARD (L TYPE) 16P	
		TRIMMER	
CV251	1-141-298-11	CAP, TRIMMER 30P	
		DIODE	
D251	8-719-914-43	DIODE DAN202K	
D559	8-719-200-82	DIODE 11ES2	
		DELAY LINE	
DL251	1-415-440-11	DELAY LINE, LC (444NS)	
		FERRITE BEAD INDUCTOR	
FB251	1-410-397-21	FERRITE BEAD INDUCTOR	
FB252	1-410-397-21	FERRITE BEAD INDUCTOR	
FB253	1-410-397-21	FERRITE BEAD INDUCTOR	
FB254	1-410-397-21	FERRITE BEAD INDUCTOR	
FB255	1-410-397-21	FERRITE BEAD INDUCTOR	
FB256	1-410-397-21	FERRITE BEAD INDUCTOR	
FB257	1-410-397-21	FERRITE BEAD INDUCTOR	
FB259	1-410-397-21	FERRITE BEAD INDUCTOR	
		FILTER	
FL251	1-421-995-11	FILTER, NOISE	
FL252	1-421-995-11	FILTER, NOISE	
FL253	1-421-995-11	FILTER, NOISE	
FL254	1-421-995-11	FILTER, NOISE	
FL255	1-421-995-11	FILTER, NOISE	
FL256	1-421-995-11	FILTER, NOISE	
FL257	1-421-927-21	FILTER, NOISE	
FL258	1-421-927-21	FILTER, NOISE	
FL259	1-421-927-21	FILTER, NOISE	
FL262	1-421-927-21	FILTER, NOISE	
FL263	1-421-927-21	FILTER, NOISE	
FL264	1-421-995-11	FILTER, NOISE	
FL267	1-421-928-21	FILTER, NOISE	
FL268	1-421-928-21	FILTER, NOISE	
FL269	1-421-928-21	FILTER, NOISE	
FL270	1-421-928-21	FILTER, NOISE	
FL271	1-421-928-21	FILTER, NOISE	
FL272	1-421-928-21	FILTER, NOISE	
FL273	1-421-995-11	FILTER, NOISE	
FL274	1-421-995-11	FILTER, NOISE	
FL275	1-421-995-11	FILTER, NOISE	
FL276	1-421-928-21	FILTER, NOISE	
FL277	1-421-995-11	FILTER, NOISE	
FL278	1-421-927-21	FILTER, NOISE	
FL279	1-421-927-21	FILTER, NOISE	
FL280	1-421-927-21	FILTER, NOISE	
FL281	1-421-927-21	FILTER, NOISE	
FL283	1-421-927-21	FILTER, NOISE	
FL284	1-421-927-21	FILTER, NOISE	
FL285	1-421-927-21	FILTER, NOISE	
FL286	1-421-927-21	FILTER, NOISE	
FL299	1-236-054-11	FILTER, LC (LOW PASS)	
		IC	
IC251	8-759-631-72	IC M52686FP-T1	
IC252	8-759-631-06	IC M50541FP	
IC253	8-759-204-97	IC MC74HCU04F	
IC254	8-759-013-99	IC MC74HC02F-T1	
IC255	8-759-605-15	IC M5M4C500L-10	
IC256	8-759-631-69	IC M52679FP-T1	
IC257	8-759-631-69	IC M52679FP-T1	
IC258	8-759-631-69	IC M52679FP-T1	
		COIL	
L251	1-408-978-21	INDUCTOR 47UH	
L252	1-408-980-21	INDUCTOR 68UH	
L253	1-408-421-00	INDUCTOR 100UH	
		TRANSISTOR	
Q251	8-729-100-66	TRANSISTOR 2SC3052TP-1F	
Q252	8-729-100-66	TRANSISTOR 2SC3052TP-1F	
Q253	8-729-100-66	TRANSISTOR 2SC3052TP-1F	
Q254	8-729-100-66	TRANSISTOR 2SC3052TP-1F	
		RESISTOR	
R251	1-216-049-00	METAL GLAZE 1K 5% 1/10W	
R252	1-216-055-00	METAL GLAZE 1.8K 5% 1/10W	
R253	1-216-057-00	METAL GLAZE 2.2K 5% 1/10W	
R254	1-216-049-00	METAL GLAZE 1K 5% 1/10W	
R255	1-216-049-00	METAL GLAZE 1K 5% 1/10W	
R256	1-216-049-00	METAL GLAZE 1K 5% 1/10W	
R257	1-216-049-00	METAL GLAZE 1K 5% 1/10W	
R259	1-216-049-00	METAL GLAZE 1K 5% 1/10W	
R260	1-216-049-00	METAL GLAZE 1K 5% 1/10W	
R261	1-216-049-00	METAL GLAZE 1K 5% 1/10W	
R263	1-216-121-00	METAL GLAZE 1M 5% 1/10W	
R264	1-216-097-00	METAL GLAZE 100K 5% 1/10W	
R265	1-216-049-00	METAL GLAZE 1K 5% 1/10W	
R266	1-216-041-00	METAL GLAZE 470 5% 1/10W	
R272	1-216-295-00	METAL GLAZE 0 5% 1/10W	
R275	1-216-295-00	METAL GLAZE 0 5% 1/10W	
R280	1-216-295-00	METAL GLAZE 0 5% 1/10W	
		CRYSTAL	
X251	1-577-164-11	VIBLATOR, CERAMIC	

When indicating parts by reference number, please include the board name.

Ref.No	Part No.	Description			Remark
	*A-6729-830-A	DI-17 BOARD, COMPLETE			(Ref No. 5000 Series)

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CAPACITOR

C371	1-163-009-11	CERAMIC CHIP	0.001MF	10%	50V
C372	1-163-133-00	CERAMIC CHIP	470PF	5%	50V
C373	1-163-133-00	CERAMIC CHIP	470PF	5%	50V
C374	1-163-133-00	CERAMIC CHIP	470PF	5%	50V
C375	1-163-009-11	CERAMIC CHIP	0.001MF	10%	50V
C377	1-163-117-00	CERAMIC CHIP	100PF	5%	50V
C378	1-163-133-00	CERAMIC CHIP	470PF	5%	50V

CONNECTOR

CN351	*1-563-685-11	CONNECTOR, BOARD TO BOARD 12P
CN352	*1-563-683-11	CONNECTOR, BOARD TO BOARD 10P
CN355	*1-563-693-11	CONNECTOR, BOARD TO BOARD 20P
CN356	*1-563-693-11	CONNECTOR, BOARD TO BOARD 20P
CN357	*1-565-733-11	PIN, BOARD TO BOARD (L TYPE) 16P

RESISTOR

R351	1-216-049-00	METAL GLAZE	1K	5%	1/10W
R352	1-216-049-00	METAL GLAZE	1K	5%	1/10W
R353	1-216-049-00	METAL GLAZE	1K	5%	1/10W
R354	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R355	1-216-295-00	METAL GLAZE	0	5%	1/10W

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	*A-6729-815-A	TM-95 BOARD, COMPLETE (SLV-402)			(Ref No. 6000 Series)

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CAPACITOR

C001	1-163-077-00	CERAMIC CHIP	0.1MF		50V
C002	1-163-077-00	CERAMIC CHIP	0.1MF		50V
C003	1-163-105-00	CERAMIC CHIP	33PF	5%	50V
C004	1-163-077-00	CERAMIC CHIP	0.1MF		50V
C005	1-163-105-00	CERAMIC CHIP	33PF	5%	50V
C006	1-163-989-11	CERAMIC CHIP	0.033MF	5%	25V
C010	1-163-121-00	CERAMIC CHIP	150PF	5%	50V

FILTER

CF001	1-567-160-21	OSCILLATOR, CERAMIC

CONNECTOR

CN001	1-566-271-11	CONNECTOR, BOARD TO BOARD 9P

IC

IC001	8-759-030-60	IC SDA5642
IC002	8-759-143-10	IC UPD75004GB

JUMPER WIRE

JW007	1-216-295-00	METAL GLAZE	0	5%	1/10W
JW008	1-216-295-00	METAL GLAZE	0	5%	1/10W

RESISTOR

R001	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R002	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R003	1-216-097-00	METAL GLAZE	100K	5%	1/10W
R004	1-216-119-00	METAL GLAZE	820K	5%	1/10W
R005	1-216-025-00	METAL GLAZE	100	5%	1/10W
R006	1-216-119-00	METAL GLAZE	820K	5%	1/10W
R007	1-216-067-00	METAL GLAZE	5.6K	5%	1/10W
R008	1-216-121-00	METAL GLAZE	1M	5%	1/10W
R010	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W
R011	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R012	1-216-073-00	METAL GLAZE	10K	5%	1/10W

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MISCELLANEOUS

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	H-5445-841-H	FULL ERASE HEAD
	H-7023-061-H	SENSOR BOARD BLOCK
	H-7412-853-H	ACE BLOCK
	⚠.1-464-829-11	MODULATOR, RF (RFU-867)
	1-466-008-51	SWITCH BLOCK, CONTROL (SLV-402)
	1-466-008-61	SWITCH BLOCK, CONTROL (SLV-401)
	⚠.1-551-908-71	CORD, POWER, EULO PLUG (AC250V, AC2.5A) (SLV-401)
	⚠.1-574-418-11	CORD, POWER, EULO PLUG (AC250V, AC2.5A) (SLV-402)
	*1-558-924-71	CABLE, PIN
	1-574-159-11	CABLE, FLAT (1MM PITCH) 30P
	1-574-160-11	CABLE, FLAT (1MM PITCH) 22P
	1-574-161-11	CABLE, FLAT (1MM PITCH) 25P
M901	1-550-458-11	DRUM MOTOR
M902	8-835-324-01	CAPSTAN MOTOR
M903	H-6896-894-H	LOADING MOTOR
T702	⚠.1-449-488-11	TRANSFORMES, POWER

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ACCESSORIES AND PACKING MATERIALS

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Part No.	Description	Remark
A-6767-801-A	REMOTE CONTROL ASSY	
1-551-513-00	CABLE, COAXAL ASSY	
3-695-308-01	DRIVER, VOLUME	
*3-726-646-01	CASE, ACCESSORY	
*3-726-647-01	CARDBOARD	
*3-727-770-01	CUSHION (UPPER)	
*3-727-771-01	CUSHION (LOWER)	
*3-729-935-21	INDIVIDUAL CARTON (SLV-401)	
*3-729-935-31	INDIVIDUAL CARTON (SLV-402)	
3-786-747-11	MANUAL, INSTRUCTION	
3-786-747-41	MANUAL, INSTRUCTION (SLV-402) (FRENCH, WEST GERMANY, SPANISH)	
3-786-747-51	MANUAL, INSTRUCTION (SLV-401) (NETHERLANDS, SWEDISH, ITALIAN)	

When indicating parts by reference number, please include the board name.

Note: The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.

HARDWARE LIST

Ref.No	Part No.	Description	Remark
		HARDWARE LIST *************	
		SCREW	
	7-621-255-15	SCREW +P 2X3	
	7-682-147-01	SCREW +P 3X6	
	7-685-132-19	SCREW +BTP 2.6X5 TYPE2 N-S	
	7-685-552-19	SCREW +BTP 3X25 TYPE2 N-S	
	7-685-645-79	SCREW +BVTP 3X6 TYPE2 IT-3	
	7-685-645-79	SCREW +BVTP 3X6 TYPE2	
	7-685-646-79	SCREW +BVTP 3X8 TYPE2 IT-3	
	7-685-646-79	SCREW +BVTP 3X8 TYPE2	
	7-685-647-79	SCREW +BVTP 3X10 TYPE2 IT-3	
	7-685-647-79	SCREW +BVTP 3X10 TYPE2	
	7-685-648-79	SCREW +BVTP 3X12 TYPE2 IT-3	
	7-685-648-79	SCREW +BVTP 3X12 TYPE2	
	7-685-649-79	SCREW +BVTP 3X14 TYPE2 IT-3	
	7-685-649-79	SCREW +BVTP 3X14 TYPE2	

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When indicating parts by reference number, please include the board name.